An Address
ON
UNIVERSITY COLLEGE AND SOME POINTS IN MEDICAL EDUCATION.

Delivered at the Medical School of University College Hospital on Oct. 2nd, 1907,

BY SIR R. DOUGLAS POWELL, BART., K.C.V.O., M.D. LOND., P.R.C.P. LOND.,
PHYSICIAN IN ORDINARY TO THE KING; CONSULTING PHYSICIAN TO THE MIDDLESEX HOSPITAL, ETC.

[AFTER a few introductory remarks Sir R. Douglas Powell continued:]

We meet for the first time in this magnificent building and I do not know whom to congratulate most—the professors or the students—on its completeness. University College Hospital and the University of London, of which it is a part, owe their deepest acknowledgments to Sir Donald Currie for the splendid and enlightened liberality with which he has built and partially endowed as an annex to the hospital this great school of medicine. And we must not forget to recognise the thoughtful and efficient labours of the building committee in formulating and supervising all the requirements for teaching, laboratory, and research work. Let us praise, too, the genius with which the architect has grasped and carried out the wishes of the committee within the confines of a very handsome exterior. But there is another aspect in which this magnificent gift of Sir Donald Currie is an object-lesson to those who will recognise it. We have over the way a great hospital, great in its present and its past beneficence, great in its traditional and its present teaching, which has been entirely rebuilt and refitted within the past few years by the public-spirited munificence of the late Sir Blundell Maple. No stone is left of the medical school which seemed so sufficient in my student days, but the traditional spirit which "age cannot wither nor custom stale" dwells in the old place—a subtle energy whose "infinite variety" meets the ever-changing requirements of advancing science. There is no break with the old days, only a growth and development which require refitments to accommodate them. There has been a tendency of late to discourage the close connexion that has existed between hospitals and their medical schools, an attempt to alienate their sympathies and to regard their interests as diverse. Sir Donald Currie, by his gift of this magnificent adjunct to University College Hospital, has pointed the lesson that a hospital without a medical school would be an emasculated institution, wanting in inspiration and cerebral direction, and lacking the stimulus of youthful criticism and appreciation and ardent enthusiasm that it derives from a student public—a mere infirmary into which the sick are received and well treated but without any lesson being learned from them for the benefit of others. With a medical school, on the other hand, it has life and virility, giving not only the most enlightened treatment to those within its walls but shedding abroad, as from a fountain source, experience and scientific methods which quicken the advance of medicine for the service of mankind. By this handsome provision of a new medical school incorporated with the hospital Sir Donald Currie has, I think, demonstrated his appreciation of the unwisdom of any attempt to weaken the tie between hospitals and medical schools. It is at least a matter of congratulation to this hospital that the difficult question is for it thus wisely solved.

With the opening of this hospital medical school University College takes part with King's College in a new departure in medical teaching which, whether for good or evil—and I believe it to be for good—will probably prove of great and far-reaching importance to the medical education of the future. It is the separation of the subjects of the second period of the students' curriculum from those of the first which are relegated to the control of a collegiate rather than a strictly medical council. The separation will be less felt here from the proximity of the two institutions, although the principle is the same. The strictly professional subjects of pathology, bacteriology, medicine, surgery, gynæcology, and therapeutics will be taught here as heretofore by the members of the hospital staff, with such expert help as they may require to students in active touch with hospital work. And this building is magnificently equipped for the purpose with laboratories and lecture rooms, library, museums, reading rooms, recreation rooms, refectory, and all things needful.

It will be noted on going through the rooms of this building designed for the different departments of medicine, surgery, and research that another phase in development in modern teaching has been taken into account—viz., the substitution, so far as possible, of working demonstrational courses for the abstract lectures of past days. The lecture rooms are mostly laboratories with a platform and a blackboard or two for the use of the professor. This marks a great advance in medical teaching which has gradually grown in the past 30 years. In my time there were no recognised tutorial classes and anything like tutorial instruction was looked at somewhat askance as adapted rather for the dull and backward student or for one who has wasted time and needs cramming. The student has thus to worry out things for himself with the help of lectures only and acquire the habit of reading with critical attention and of verifying his reading by dissection and personal observation rather than by demonstrations at the hands of the professors. The advantages of the present system are manifest. The student with the same amount of thoughtful work not only learns a great deal more but can verify his learning in every detail. Let me make one note of warning that each student should be careful under these more helpful conditions to keep his robustness and independence of mind: that he should thoroughly digest for himself the strong solid food of science rather than absorb without efforts mental "tabloids" and essences peptonised by his professor. He will thus avoid acquiring a somewhat forced smartness of mind which is not enduring strength, and which whilst it may serve for passing examinations does not develop the strenuous intellect and solidity of learning which will equip him for success in the responsible and difficult work of his professional life.

I would urge every student now entering upon his course to press on with all zeal and thoroughness with the preliminary science work and to settle down here and at the hospital to those more advanced studies which will finally equip him for that struggle against disease in every climate of our vast empire and in every grade of our complex civilisation which is to be his life's work. Work hard as he may, he will scarcely find less than three years sufficient for the completion of the second part of his curriculum. And if the five years' course is to be maintained, as I think it should be, this leaves but two years for the first part, which has now at this college been relegated, in accordance with a long-thought-out scheme, to a separate building and a separate control.

It is with regard to this part of the student's career that I wish to say a few further words. By separating the first two years' subjects of anatomy, physiology, chemistry, physics, biology, and materia medica from those of the hospital medical curriculum, making them college subjects rather than medical school subjects, University College is with King's College, I think, but heading the inevitable drift of events. For it is only by large classes that the expenses of equipment for teaching these subjects can even in part be met. And not only are the subjects of anatomy and physiology too large and absorbing nowadays to be taught by men who are engaged in the arduous work of building up consulting practice in medicine or surgery but there is the further fact that the duties of the dissecting room and the wards cannot, in the light of modern antiseptic requirements, be regarded as compatible either for teacher or student. Neither can the other sciences of chemistry and biology, which are not open to this latter objection, now be efficiently taught by men engaged in hospital work and private practice. It is also in connexion with this separation of the two sections of the curriculum that the question of time and scope of work comes in. Five years having been fixed upon as the period for the curriculum for general qualification to practise, not more than two years of that time can wisely be afforded for the preliminary science subjects. I am myself decidedly of opinion that most, if not all, of the chemistry, biology, and physics required for the ordinary pass examination might, and should be, and in time will be, included in the public school science studies, and be cleared off before the student enters upon the medical curriculum at all; so that the first two years of the student's time may be given up almost entirely to anatomy and physiology, including some comparative anatomy, so far as it may be

illustrative of human anatomy, and some physiological chemistry. For Anatomy and Physiology are the very bases of clinical medicine and surgery, with which through pathology and bacteriology they are in unbroken continuity. Morbid anatomy and pathology, for instance, throw light upon many points in physiology. Without the teachings of the symptomatology and pathology of disease many of the most important advances in the anatomy and physiology of the nervous system would still be dark to us. Such illustrations which make for that continuity in learning which is so important to the medical student can be better appreciated and insisted upon by an anatomical and physiological professor who is himself of medical training. Whilst there is much to be said for concentrating the teaching of the primary sciences in a few centres, it is one of the drawbacks of so completely separating the primary from the secondary subjects of medical education and making them academic subjects that the ultimate aim of the education of the average medical student may be forgotten.

In the possibility that under the new régime anatomy, biology, and even physiology, as well as chemistry and physics, will be taught by professors with no medical knowledge or special sympathy with the aims of medicine the medical student must guard himself against alienation from the application of his teaching to the needs of suffering humanity or he will be apt to acquire an impatience with sick people, the problems connected with whose maladies he may regard as too full of variants and compromise to command his interest. Such a man, however good a scientist, will make a very bad doctor. The old idea of the student in the early years of his course being in touch and sympathy with hospital doings by occasionally going round the wards or to the out-patient rooms and operating theatre is past and gone. Nor does the student now commence his formal studies after any experience of apprenticeship. Such remnants of old times have vanished and are not to be regretted, but neither should they be forgotten. Some attempt should be made to preserve the professional interest and zeal which they inculcated.

There is no finality in learning and the sciences associated with medicine are especially in a state of progressive change and discovery almost kaleidoscopic in their rapidity, the dogmatic teaching of to-day being very apt to become only of historical interest to-morrow. The student cannot become an expert in anatomy or physiology, in biology or chemistry, unless he devotes his whole life's work to one of these sciences, but he may learn from the master mind in each of them the foundation principles illustrated by abundant examples selected from within the sphere of his future work in such a manner as to render his mind open to grasp and to appreciate the significance of the changes and developments that will arise from year to year through the whole course of his professional life. It is receptivity not the pretension to final knowledge that is required, a certain openness to receive but a disinclination to be obsessed by any new discovery or development and the ability to fit it in aright with the other requirements of sound diagnosis and treatment. It was in this view that I ventured just now to urge the student to preserve his independence of mind in the verification of everything that can be demonstrated. It has occurred to me in the course of practice to meet with some ludicrous instances of good men obsessed by some new clinical or pathological discovery and for the moment deprived of their common sense of proportion and perspective in symptomatology and treatment.

The dangers for the student of extending the scope of his preliminary science work actually in time—I believe two and a half years are already taken up with it—or in difficulty must be safeguarded by wisdom and foresight on the part of the ruling councils of the schools, and ultimately by the watchfulness of the General Medical Council and examining bodies. I have hitherto been considering the needs of the average man—about 90 per cent. of those who come to medical schools—who requires to qualify for the work of his life, and I trust it will not be thought that I am in any way seeking to curtail or to minimise the present sufficiency of the qualifying curricula and examinations in London. They furnish an ample and thorough equipment for medical practice, and it is a matter for regret that the ordinary Conjoint qualification cannot be signalised by some more definite designation than they now carry. I would make any further work beyond the requirements for the qualifying examinations more strictly post-graduate work. When a man has qualified in his first two years' subjects by passing the required examination he would do well to proceed to a six months' or a longer course in those subjects for the higher university degrees, and when he has qualified in the second grade and obtained his Licence to practise he may proceed to post-graduate clinical, pathological, or other research for his final examinations in those degrees or for the Membership of the Royal College of Physicians or Fellowship of the Royal College of Surgeons. A university degree and the higher grades of medicine and surgery should be regarded as something beyond and in a sense outside a qualification to practise—as an academic or other distinction for the attainment of which a man may take as long as he pleases, but for which certainly some additional work in each grade or period of his studies should be required.

London cannot compete with some other university centres in the rapidity with which it can turn out graduates in medicine, but there is no qualification for practice higher in status and usefulness than the Conjoint Licences of the Royal Colleges, and the London University degrees in medicine and surgery should maintain a correspondingly commanding position and thus continue to attract the best men to its schools.

To secure this in the future I believe it to be necessary to make the work for the higher degrees post-graduate in each grade. And whilst the studies of the first half will be, I think, best pursued, with due safeguarding, in academic institutions, those of the second half which are strictly professional might be more strenuously conducted in our great hospitals if they were exempted from the expense and exhaustion of energies necessary to maintain the teaching of the earlier subjects. I cannot but think further that some affiliative grouping of the great clinical hospitals about the three university centres would be of great value in point of view of financial economy and strength of teaching. It is very possible, too, that special hospitals and infirmaries might be more utilised than they now are for clinical teaching material and especially for post-graduate teaching. It was suggested to me in conversation by a friend of mine, an authority on the General Medical Council, that there should be some limitation in the numbers of students at the hospitals proportionate to the number of beds available for clinical teaching, so that on the one hand each student should have a fair proportion of cases for personal study, and on the other that individual hospital patients should not be subjected to the fatigue of too much examination.

ABSTRACT OF

An Inaugural Address

ON

"RES MEDICA, RES PUBLICA": THE PROFESSION OF MEDICINE, ITS FUTURE WORK AND WAGE.

Delivered at St. George's Hospital on Oct. 1st, 1907,

BY WILLIAM EWART, M.D. CANTAB., F.R.C.P. LOND.,

SENIOR PHYSICIAN TO ST. GEORGE'S HOSPITAL AND TO THE BELGRAVE HOSPITAL FOR CHILDREN.

[IN the opening passages of his address Dr. Ewart made appropriate references to the senior consulting physician, Sir Henry Pitman, who is now in his hundredth year, and to the recent deaths of Mr. Timothy Holmes and Dr. Robert Barnes. He then introduced the subject of "The Profession and its Twentieth Century Crisis" and continued as follows:—]

Had a man stepped forth in ancient Greece or Rome equal in wonders to the youngest of our qualified men he would have been accounted a demigod. We have 30,000 such in the kingdom, and they pass unnoticed as negligible quantity. But a body controlling so much power cannot remain a cipher. We need only look back little more than a century, as the whole change has occurred in that time. Its wage, its status, and, alas, its routine have remained what they were; but a transformation has been silently accomplished within it. It held the shadow of knowledge; it now holds the substance. It had laboured long in hopeless efforts

to be of use; it now waits upon humanity with the most brilliant service. Yet it ingloriously remains "Cinderella," the humble maid of all works.

We are in the throes of a double crisis: an economical crisis which affects a large majority of our numbers, and a professional crisis which threatens a previously compact profession in its corporate capacity. The situation itself and its great factors are entirely new. The earliest symptoms were overlooked and subsequently misunderstood. They were treated symptomatically without any reference to their cause, and the same symptomatic treatment runs risk of being repeated, as fresh symptoms continue to break out in connexion with the individual and with the profession. As both crises have identical and reciprocating causes no separate remedy can exist for either, and any drastic measures would be dangerous if one-sided. Before we can attempt to legislate for the future we must grasp the inevitably progressive nature of our changes. The chief cause of the economic crisis is our immensely growing success in reducing the prevalence of disease. That which mainly constitutes our professional crisis is the unlimited growth of specialism as the penalty of our progress; we have got in some way to fit it is, or we must fit in with it. The third, which takes effect in both directions, is the headlong change in the times with which our old routine is quite out of touch. But we also have to take a clear view of the conditions within the profession itself.

The present state of the profession.—What is the profession? and Where is it? It is becoming increasingly difficult to be definite in speaking of the profession as a whole, and hardly any general remarks can apply with equal point all round. Yet as the laity look upon us as a definite entity we must shape the argument upon their concrete view and use the word as a conventional formula for that which to us is really an abstraction. What are the facts? "Pure medicine" and "pure surgery" are both dwindling by chronic cleavage. The great section of "pure surgery" rejoices in exceptional activity and in the absence of any grudge whether from the body of the profession or the public. Moreover, thanks to the ever-increasing risks to life and limb from the harnessing of the forces of nature, it will continue to be in some request apart from the prevalence of disease. But "pure medicine" is left as severely alone as possible by both. In like manner most of the surgical sub-specialties are in work, but the medical preserves are shot over from every quarter without much regard for any genuine title to the ground. It thus happens that, though the long and gratuitous labour of research is mainly borne by the medical section, they are not as welcome as the quack to a meagre retribution for its fruits; whilst the surgeons are allowed by a public eager to be "operated" a fair acknowledgment for the time and skill which they more largely devote to practice. There remains the vast body of general practitioners, the bone and sinew of the profession, more homogeneous through the pervading similarity of their avocations, but more isolated by their exacting duties from professional intercourse even in towns. But within recent years a great and hopeful beginning has been made, thanks to the energy of a select few in their number, and to the devoted efforts of the officials representing the British Medical Association throughout the Empire, which should end eventually in the personal participation of all or of a large majority in the organisation which has been elaborated for them. Within that body the disparities are considerable, the great changes which the profession has gradually undergone having told unevenly in the direction of increased labour, technical, professional, and charitable, and of diminished emolument. But an adequate living wage is the exception; whilst the worst predicaments are too serious to be further endured. This complex and strained machine of our profession needs expert handling to save it from being wrecked. None of our specialties, even the most scientific, can be taken as fair exponents of the requirements of the whole. On the other hand, even a complete combination of all general practitioners could hardly be expected to negotiate the affairs and fight the battles of a profession in which specialism is taking in respect of remunerated practice, but particularly of study and of discovery, so considerable and increasing a part. Moreover, all groups alike have had practically to resign the technicalities of "research," that latest and tallest of our branches which alone can give our full height when it comes to "sizing up" the profession.

The professional crisis.—The extensive field of specialism must continue to grow. Does this read practical dismemberment through divided interests and the end of our influence as a great fighting unit? Is it with us "Finis Poloniæ"? That prospect is before us unless we can provide some timely cement for the safety of the profession and of specialism itself. Some of the risks of the latter are obvious enough. They have not hitherto included the struggle for existence, though this might easily eventuate in some of them.

The economic crisis.—The field of general practice has been for many years contracting and is bound further to contract. The medical practitioners are too many and the patients are too few. At the present accelerated rate of prevention there will soon be little left of preventable disease to attend. The altered conditions of life must tell upon local practice, whether in town or country. Sentiment still pleads for the devoted family practitioner, but no man can regard the personal allegiance of those who consult him as a reliable source of income. Nevertheless, in the wealthy districts there must always remain, in spite of all drawbacks, a fair opening for local practitioners if only their number could be limited. Less precarious, perhaps, is the practitioner's hold on the humbler class of practice, particularly under the provident system. But this has given rise to crying abuses under which he is still the sufferer. Lastly, owing to the increasing size of our great towns entire districts are tenanted by a population little removed from destitution, in the service of which his ministrations, not less valuable, not less faithful, not less honourable than elsewhere, lead neither to honour nor to a reward compatible with the dignity of the profession. Let me quote from the *British Medical Journal* of Sept. 7th and 14th: "The average income of the British practitioner has been variously estimated at £200 to £250 a year. ..... The chances of being able to save even to the extent of the return of the capital expended in education are in a large proportion of cases slight; while reasonable provision for old age, after family expenses are met, is difficult and too often impossible." Is this the wage of life-long self-sacrifice and of the highest skill? The odium of so great a reproach has not been truly our own; but we should make it ours were we to fail to concentrate upon its cure the entire strength of our united body, and for that purpose alone, if for no other, we need a compact profession.

The causes of the crisis.—To dispel any doubt as to the permanent character of the changes it is enough to enumerate their causes. The prime cause is the spread of the old tree of Knowledge. The immediate causes are its fruits, chiefly of nineteenth century growth. First on the side of the Laity: (1) the vulgarisation of facts and fallacies by our irresponsible press; (2) the genuine growth of education, particularly in science; (3) the resulting Free Thinking and Liberty of Conscience in matters medical; (4) the independent individual inquiry for specialism on the one hand; and on the other (5) the recrudescence of the innate fascination for home treatment—no longer with simples but with compressed remedies; (6) the emancipation of the patient which sums up these tendencies; (7) the reversion to nomadism or a wandering life, with all its good and all its evil—a taste fostered by the enormous growth of rapid locomotion; (8) nomadic restlessness and instability as it affects the conditions of practice; (9) the decline of invalidism as a result of "open air" and of an active life; (10) the promotion of health by the remarkable spread of physical hygiene, particularly among women; and (11) the salutary influence of the growing moderation in the use of alcohol. Much of all this is the harvest which we have sown. Much more remains which can only be described as the direct handiwork of the profession: (1) the increasing knowledge of the nature of disease, of its treatment, and of its prevention; (2) the suppression of many decimating infectious diseases; (3) the surgical cure of many intractable chronic ailments; (4) the inevitable specialisation of the study of disease; (5) the progressive growth of specialism in practice; and (6) the attractions exercised by the success of specialists, which tends to swell and overcrowd our ranks.

All these are new facts in the history of the world. Can we pretend to arrest their progressive development? If not, is it likely that the new situation can be met by anything short of a new departure on our part?

THE STATE AND THE PROFESSION: A. THE INTRINSIC VALUE OF THE PROFESSION IN THE STATE.

1. *The conservative function.*—The relation of the profession to the State is a much more important consideration than is

commonly suspected. Above all conservative, and above all progressive, its antiquity and stability are not merely ornamental but columns of support for our institutions. Its conservatism, copied from the teachings of nature, spreads as a lesson which our time is least fitted to supply. Our own unhalting progress is equally safe from the spirit of reaction and from that of revolution. Even under mob rule we could feel secure, for it is something to be so poor as not to invite spoliation; and it is much more to be so skilled as to be indispensable. Indeed, we stand as the political body whose fabric shows least signs of rocking.

2. *The function of progress.*—No less precious than this staying function is our perpetual youth with its immense working power. When humanity shall have passed through its era of diseases our function of progress will stand better revealed in the promotion of its highest physical, intellectual, and moral development. Potentially it is so now to the knowledge of the better informed.

3. *The educational function.*—Faust could not have lived within the last 150 years or he would not have included medicine in his catalogue of barren studies. Our students and their labours are a wealth in the State. Their arduous curriculum has often proved a stepping-stone to distinction in other careers. Its wide and practical training is worth taking for its own sake apart from any idea of practice and it may be begun quite early without any fear of eventual regret. For the community the educational value of the profession will continue to rise with the growth of its higher specialties of research.

4. *The advisory function.*—There are few questions relating to the welfare of the race, besides the social question itself, in which the deliberate opinion of the profession would not be the most important of all opinions to ascertain. There is none within its immediate competence greater than that of national education. Where else can be found the expert knowledge of cerebral physiology and pathology to adjust the increasing intellectual burden to the growth of the physical capabilities of the child? A service hitherto uninvited which the profession will in the future be required to render to the State.

5. *The political function.*—For the exercise of this function it has no longing. Intolerant only of error, it can never surrender its conscience to party, and must remain above the arena. But in any political redistribution its integrity of purpose and disinterested benevolence may count, and duties will attach to the power which it owes to knowledge and to highly trained aptitudes. Its legislative fitness is displayed in the important growing sphere of medical politics. Lastly, the contingent of able and highly educated women who have of late years joined its ranks is an accession of consultative efficiency, as this completes its practical representation of the entire interests of humanity, man, woman, and child.

B. THE VALUE CONTRIBUTED TO THE STATE.

1. "*Do ut des.*"—The fact is startling yet true that whilst there is no profession but this handing to the State immense treasure year by year, if this be merely computed as wage-earning value of the human lives saved all other professions have State subvention, establishment, or endowment, to say nothing of other rewards that fall to their lot. Alone the profession of medicine is not assisted, not even with the education for the supply of that wealth. The profession labours and gives, the State takes—where is the "Do ut des"? Again, the incalculable value of the disablement from work now so largely saved by preventive hygiene is an unacknowledged gift not of any surplus of wealth but of the actual means of livelihood of the giver. But this is not all. Preventive pathology is becoming a definite specialty and the profession is dividing itself into two uneven sections, that of "practice" and that of "research." The latter works unpaid for the gain of the State and against that of the profession. The suggestion that its support should be charged to the profession would be neither common sense nor common justice. As a branch of national defence it contributes immense value and has a higher claim to national subvention than the King's forces which contribute nothing and cost so much. All this makes up a heavy debt, with but meagre instalments on the other side of the account.

2. *The nation's vicarious charity.*—Not less gigantic is the contribution received by the State from the great branch of "practice" in the shape of unrequited or ill-requited service to the community. The "nation's almoners" is the only title which could express the mission of many of our number in the poorer districts. If anything could be more pathetic than the rags of the Apothecary in *Romeo and Juliet* it is that quiet devotion of the surgeon of twentieth century attainments as he toils under his heavy burden either totally unpaid or at a wage which is not presentable. Innocent of causing the poverty which he attends, yet a heavy toll of overwork with underpay is systematically levied upon him which, strange to say, does not relieve him of the payment of the poor-tax or of calls for the support of many charities.

The State which ignores motives of sentiment or of pure charity has to answer for the health of the masses. As regards the pauper class, the liability has been acknowledged; and for that section of its health insurance the public pays the whole because the pauper can pay nothing. But for the vaster insurance of millions who can afford only totally inadequate compensation it pays nothing at all. Thus an immense burden belonging to the State is shifted on to the shoulders of its hard-ground almoners. But no record is kept of the transfer nor any voucher given to show that business has been transacted for the State. For the unofficial press the whole transaction goes under the simple heading "Charity and Charitable Work." From society more of contempt is earned than of pity by the toiler of the slums. But it is not perceived that charity is being done for the nation—*vicarious charity*—and therefore done unto the nation itself.

SANITAS SANITATUM ET OMNIA SANITAS. (C) THE DUTY OF THE STATE.

The profession has hardly realised, much less the laity, that a turning point was reached with the acknowledgment by statesmen that the health of the people is the primary care of the State. The honest application of that principle places the profession in an entirely different position, as on examination a great deal of its work is work done for the State—some in the strictest sense State work, another portion public work. It is inevitable that the profession should become more and more the servant of the State. As the organisation of the Public Health Service has brought the new principle into active existence the system must ultimately reach its normal development.

It is manifest then that the quality of our professional work is not a matter of indifference to the State which absorbs it so freely. Good work is said never to be wasted; a comforting view, as the less our labours have profited us the more certainly must they have been of some use elsewhere; but as it is bad economy to spoil the quality of good work by breaking the spirit of the worker our legitimate requirements are not foreign to public utility. They will be appreciably furthered by the fulfilment of the duties to which the State is pledged by its own policy: (1) the organisation of the prevention of disease and of the cultivation of health; and (2) the organisation of research for both those objects. The nature of the measures required is not open to question: a State examination to insure the highest efficiency; and a Ministry of Public Health to undertake vast responsibilities too long officially ignored.

OUR REMEDIES AND PRACTICAL IDEALS.

1. *Quality versus quantity.*—Relief cannot be obtained from any source immediately, but would come with least delay and coupled with honour and efficiency from restricting our numbers by adding to the labour of our apprenticeship and to the quality of our work. These are not features of trade-unionism, a policy with which we have little in common. They are principles of duty and of progress, and practical applications of the rules of political economy for the profit of the employer as well as the employed. Individual and vested interests may be affected, but without any moral reproach. The only iniquity would be to keep an entire profession in suffering by widening the portals for one or two, otherwise able, who happen to lack aptitude for drawing, for spelling, or for Greek, or have been misguided in their early education. We must consent to the loss of these odd geniuses for the sake of larger interests. To existing members of the profession this policy offers an unmixed advantage, and for their sake also it should receive the support of our great universities and corporations. The problem of the attendance on the poorer classes and of its proper remuneration is difficult, but why should it be insolvable, with the coöperation of our employers and of the State? In this matter the word "impossible" should have no application, for of all unpractical suggestions the worst were to submit to a continuance of the present plight of a noble profession.

2. *Our policy of reform.*—Our first thought should be for

the safety of our prestige and of that noble edifice of our ancient institutions which appeals to the world as a monument of our past and a symbol of our future. Our next care is for the preservation of that energy which was never lacking and for its transformation into organised power, which we have lacked too much. Lastly comes reform, that of our own shortcomings, and of unwise concessions: the concession to the lingering belief of an ignorant public in the occult powers of the phial, which lowers our calling and plays into the hands of the quack; the concession to the faint-hearted in our number, who submit to terms we should no longer tolerate; the concession to the State, with which we have a long account to settle for unrequited service; and the fatal concession to unsuitable candidates for our qualifications, whose admission overcrowds our ranks with small profit to themselves. Drastic remedies, perhaps, but less painful than the evils they are meant to correct.

3. *Our tactics* are: Concentration of our battalions and of our individual energy. This year has witnessed a great achievement in defensive reconstruction. In their own school, I invite you now to do honour to the names of my distinguished colleagues who have deserved well of the profession, Latham and Pendlebury. Academical concentrations such as that of the great Royal Society of Medicine which we owe to their labour and energy, and to those of its indefatigable secretary, Mr. J. Y. W. MacAlister, are the type of others which we need: the social concentration, with its accompaniment of conviviality, if only this could be made less deadly by deed and by example, and above all the professional concentration which is to lead to our political organisation. Fortunately in this country there is no lack of strong centres for concentration—our universities, old and young, and our ancient corporations. Unlike the Guilds, whose office has passed away, and whose wealth only remains awaiting their doom, the great corporations are in the fulness of an unexpended energy. Their poverty, and much more their usefulness, are an insurance from the socialism from without, if only they are loyally backed from within our own body. To our ancient universities, the custodians of the fame of the Faculty, we look for the safety of our high standards, which is our only safeguard. Where else shall we find our examples of perfection? In America Harvard University has nobly acknowledged the burden of its greatness as an old university by restricting the access of its medical faculty and of its medical degree to men of superior academical education who have taken the B.A. degree. The reduction by one half thus suddenly effected in the list of pupils is in reality a gain to that great school and to the profession.

THE EDUCATION OF THE PROFESSION.

1. *The preliminary education.*—Foreign languages are an essential addition to our training, to broaden it not to contract, only their study should not be made an illusory substitute and a waste. In this country a little child cannot learn Latin or Greek phonetically but he could learn to speak French or German at a kindergarten before the age of five or six years with greater ease than ever afterwards.

2. *The professional curriculum and progressive education in science.*—Though our pupilage comes to an end our studentship of medicine never does; this means that science should be not only the beginning but, above all, the end of the pupil's curriculum. Science and clinics are as body and soul, from start to finish inseparable and not to be grown as pure cultures in separate incubators. Together they must live and together they should dwell. In that direction we are learning another great lesson from Harvard University. Dr. Morgan Rotch of Boston has promised to construct a memorial hospital for infants. Another hospital will be devoted to the diseases of children and a large general hospital to those of adults. All three are to be built within the precincts of the Harvard Medical College. All honour to the city of high ideals for having for the first time in the history of medicine built the halls of science first, around which three hospitals are to grow up for the better service of the healing art. The brilliant object lesson of this far-seeing charity and of the enlightened munificence of a Pierpont Morgan and of a Rockefeller cannot be thrown away upon our great cities and philanthropists. More hospitals by all means. But the first need is for laboratories.

OUR FUTURE WORK AND WAGE.

The future earning power of the profession is not easy to estimate, but we may infer that as emoluments for private services decrease there will be some tendency towards an increase in remunerated public work. We have seen our busiest days in the treatment of disease: henceforth our livelihood must be increasingly derived from the care and culture of health. The greater part of that remuneration must ultimately be derived from the State. The long-delayed medical inspections of schools is a first instalment in that direction, but much larger work should follow which would employ larger numbers. The registration of the health of each individual with a view to the prevention of disease is not a Utopian idea but a measure suggested by common sense.

CONCLUSIONS.

This imperfect sketch can only suggest outlines, not any of the details:—

1. As a profession we can advise and we can act; but the business of health is of the State. State organisation and subvention for increasing labours undertaken in its service are unavoidable, even at the cost of public treasure, and for us of a nominal loss of independence.

2. A Ministry of Public Health and a State examination are the definite steps for immediate contemplation.

3. Our practical policy is to be "prepared for any fate" by unlimited adaptability for the coming changes, of which we only know that they will exceed the record of the past. And this means raising the preliminary educational standard to its highest pitch, which can never be too high for the possibilities ahead. This is also our only plank of safety from the dangers of overcrowding and of disorganisation.

4. Indispensable to teachers and to rulers our coöperation should be worthy to command its own terms.

5. The fundamental reform in the status and remuneration of the profession demanded by its vast labours and service can only be won by high standards of self-improvement and by the combined efforts of the highest and most influential with the rank and file.

6. The details of reorganisation are beyond the wit of individual man but would evolve from the operation of the four principles which are essential: (1) exclusion from our portals of any but the highest preliminary educations; (2) uniformity of the professional State qualification; (3) recognition of the equality in claim to adequate remuneration; and (4) assumption by the State of those responsibilities which are not ours but of the State.

7. Our future wage should not fall short of that competency which allows scope for the best work. Wealth it never will be. As of old, it must remain largely consciousness of doing our best as healers and helpers, as students and teachers, and as a moral and intellectual *élite*, with the added satisfaction of belonging to a profession not only honourable but honoured. For you who fearlessly join its ranks a proud *alma mater* will buckle on the armour. This school is not a large one, but greatness breathes in its environment. It has interpreted the remotest past and it has led the future. The men who made it were the makers of the new era—John Hunter, the prophet of pathology; Edward Jenner, the founder of preventive medicine; and Thomas Young, who counted the waves of ether and made the Pharaohs speak. Forget it not.

An Address

ON

THE FIRST HUNDRED YEARS OF THE GEOLOGICAL SOCIETY OF LONDON.

Presented at the Centenary Celebration on Sept. 26th, 1907,

BY MICHAEL C. GRABHAM, M.D. ABERD., F.R.C.P. LOND., F.L.S.,

REPRESENTATIVE OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON AT THE GEOLOGICAL CENTENARY CELEBRATION OF 1907.

THE SOCIETY IN THE PAST.

MR. PRESIDENT,—The satisfaction of all of us here present to-day to celebrate with you the birth of the Geological Society of London a hundred years ago is perhaps especially the sentiment of the learned body on whose behalf it is my privilege to address you at this moment, for not only have we in our office as custodians of the public health participated in the benefits derived from your investigations but also as men of science, ourselves linked up with every kind of philosophical inquiry, have we, working with you in your own sphere of interest, contributed

materially to the advance of geology itself from the early days of its straitened infancy to the robust and satisfactory adolescence it attains to-day.

Ten of your principal officers in the ten decades under review have been trained in medical science, our progress has been concurrent, we have advanced by similar methods, used similar means; the microscope which has given you petrology has also shown us the bacterial nature of many important diseases, such as diphtheria, erysipelas, typhoid fever, malarial fever, &c., and has helped us effectively to grapple with these destructive agencies and we have been equally dependent upon the tributary assistance and resources of common allies in the sciences of chemistry, biology, embryology, and physics. In your early days you were domiciled—with a view to a "greater appearance of respectability"—with one of our medical societies, and the physicians regarded your advent with the same fostering interest with which they have always greeted scientific research.

The founders of the Geological Society, revered fathers in the science, although well acquainted with Aristotle and the ancient geologists, familiar, too, with the reasoning of René Descartes, were mainly occupied with the fossil-bearing strata and a limited mineralogy, though Kant 50 years earlier had started geological speculations on Newtonian principles as to the origin of things, and had prophetically found that "the cosmic process is really simpler than the biological."

But the earth was without form and void, and progress was barred by traditions to which investigations had to be accommodated. You were the pioneers of orderly method and patient investigation, and your initiative has everywhere been followed. Thus the broad outlines of palæontology, the common property of the geologist and biologist, were traced in the infancy of research, when the widely extended observations of William Smith established the important truth that each stratum contained fossils peculiar to itself and that the order in which the strata, characterised by these fossils, are superimposed one upon another is always the same. It would be difficult to mention any other generalisation which has so profoundly contributed to the progress of geology, for it has enabled geologists to identify rocks, however altered, whether by interruptions of continuity or structural change; it has, furthermore, established an orderly sequence in our knowledge of the appearance and extinction of the beings which have populated the earth during the vast periods of time indicated in the fossil-bearing rocks; and it has singularly justified the well-known analogy of geological and archæological methods enunciated by Buffon, who appeared, Sir, exactly a century before the birth of your society.

De la Beche was born in 1796; Ramsay came in 1814, and dates his first geological work from 1834; Lyell's first edition was published in 1830. Darwin started in the *Beagle* in 1831, and made his suggestive observation, showing that the fauna immediately preceding that at present existing in a given geographical province of distribution presents the same peculiarities as its successors. It is therefore remarkable that the growth of geology, so deeply concerned with the names just mentioned, should in so short a period have acquired its present breadth of foundation and satisfactory stability. Your groundwork is permanent, however the agencies we now associate with the process of building up, depositing, and denuding may need reconsideration from time to time.

GEOLOGY IN THE PRESENT.

But geology is now not only a science but has also become a career, a profession, with a department under the Government, ministering constantly to the growing requirements of our race. The splendid work accomplished by the Geological Survey of Great Britain and Ireland, from which the Geological Society of London is truly inseparable, has become a perennial fountain of practical utility. Every geological feature is now noted by an efficient staff, reduced to scale, and grafted upon the geographical ordnance maps of the country and thus made generally available. Moreover, when the geographers have outlined the superficial features of a new country or colony you, Sir, are the earliest forerunners in its settlement and adaptation to the needs of modern civilisation, sending forth cultured persons, generally possessing the qualifications of a university education and the practical training of the survey, who are called to indicate to the engineer where he shall seek for water, where place his reservoirs, what rocks he may have to pierce, determine sites for towns with reference to subsoils and the influence of the superficial strata, to guide the search for minerals, and to protect in all these and in many other matters here unmentioned the community from irrevocable mistakes and losses. Furthermore, geology is deeply indebted to the survey for the skill and insight with which its officers have solved many of the more difficult of geological problems; propounded an intelligent sequence in stratification; explained the imperfection of the palæozoic record and its gaps; shown the vast periods involved in denudations of materials of enormous thicknesses; the meaning of glaciation and the successive changes in geography and climate recorded in glacial deposits; and also much work of equal magnitude in every department of the science—nearly all of which has been enunciated in these rooms, and with which the imperishable names of De la Beche, Ramsay, Murchison, and Geikie are closely associated.

The School of Mines and the famous museum in Jermyn-street, with its practical applications of geology to the public requirements, the collection of minerals, and the series of fossils in stratigraphical order are all due to the disinterested energy of the survey officers, and the department is naturally beset with applications for advice on every subject to which geology is related. Thus, then, has your science become established and interwoven with the national life.

THE FUTURE OF GEOLOGY.

You will probably indicate, Sir, in the address to which we shall immediately listen, the direction which geological investigation may be expected to take in the early future. It may be assumed that steady progress will continue to be made on existing lines in every branch of present research and that much will be added to our present scanty knowledge of the population of the earth during the mesozoic epoch; whilst at any moment, some earlier and less developed form than we yet possess of man himself may come to light, or at least some knowledge of influences and associations, humanising in tendency, during which man may have emerged and have become a living soul.

But geologists cannot much longer remain indifferent to the constantly accelerating speed with which our mineral resources are vanishing under the insatiable demands of a modern and wasteful progress. In the early days of the Geological Society our coalfields were practically untouched, our sources of pretoleum unknown; but almost every step since taken in the national advance and increase has contributed to the prospect of a paralysis of progress, and a waning of prosperity at no far distant date, by the wanton exhaustion of our material resources.

New fountains of energy, solar or terrestrial, must be tapped if population is still to increase and the evolution of our race is to proceed; and if, as we were told at the meeting of the British Association a few days ago, geological investigation is now to change its course and go deeper we cannot do better than look into our vast stores of underground heat, as yet quite unutilised, and consider the practicability of their application to the supply of energy at the surface, whether by conduction or by some simpler and more direct means of converting heat into electricity than we yet possess. The thermopile may be our starting-point in this direction.

Meanwhile, these underground forces have other interests for us, neither have we yet subdued them. They are constantly in movement; never quiescent; and from time to time they are manifest at the surface in earthquakes, sea waves, and volcanic eruptions. We register their force and forecast their outbreakings by instruments sensitive to vibrations. I have reason to believe, however, from practical observations, that we shall by-and-by obtain a more exact estimate of the significance of underground commotions, by the measurement of the magnetic disturbances due to them to be observed in the conductors of the long submarine cables which now so amply link our continents in communication; and as a case in point I have notes showing magnetic disturbances which gave, for three days at least, premonitory indications of a coming commotion which destroyed the cable in which I was observing, caused a huge landslip, generated a destructive sea-wave, and broke up so much of the sea bottom in the district agitated as to render it necessary to swerve 15 miles from the old course in seeking for a smooth surface in the ocean to receive a new cable.

We may also expect some elucidation of the time problem.

Geologists are constantly challenged by the physicists to defend their demands for the vast periods of time they require to account for the deposition and denudation of the rocks and also for the evolution of the present forms of living things from primitive types, and though "they do not now consider the question of absolute dates as outside the scope of their investigation" (Kelvin), there is at present little agreement amongst them as to the period of time consumed in any single feature of erosion, though substantial efforts have been made to arrive at measurable data by the study of the influence of flowing streams, the recurrence of glacial epochs, and other means. The records are so vast that many of the earlier geologists were driven to regard time as an infinite quantity rather than to attempt to estimate in millions the years which may have been required for the evolution of the present order, inorganic and organic.

But the students of physics not only opposed all this, on Lord Kelvin's well-known deductions from tidal retardation and the rate in loss of the earth's underground heat, &c., but they turned upon the geologist and cast upon him the onus of fixing a date for the first fitness of our planet to support living things and for the more ancient beginnings of the first stratification. "The age of the earth as an abode fitted for life is certainly a subject which largely interests mankind in general. For geology it is of vital and fundamental importance—as important as the date of the Battle of Hastings is for English History. It is quite certain that a great mistake has been made—that British popular geology at the present time is in direct opposition to the principles of natural philosophy. Further as to the future, we may say with equal certainty that the inhabitants of the earth cannot continue to enjoy the light and heat essential to their life for many million years longer, unless new sources, now unknown to us, are prepared in the great storehouse of creation" (Kelvin). Such announcements, and the authority with which they came, profoundly affected every thinking geologist, and very serious efforts—some of them extravagant—were made to harmonise the record of the earth with the mathematical limit now imposed. Estimates in years fell from 500,000,000 to 20,000,000, as giving sufficient time to account for everything; and Lord Kelvin wrote: "We cannot doubt that Confervae in a pool or rivulet of warm water, in the early years of the first century of the solid earth's history, if favoured with sunlight, would have lived and grown," &c. But everything was felt to depend upon the reliability of the material which the mathematical mill (Huxley) had been set to grind.

Meanwhile, in quite recent years investigations of momentous importance have been made, and we are now in possession of radium and the almost universal manifestation of radio-activity as a property of matter. These discoveries, which week by week seem to be affecting our conception of the elements in a manner truly revolutionary, have shown that we have present with us "no new sources of light and heat prepared and stored up," but a concurrent and unexpected form of energy, whose powers and limitations we have yet to grasp; and if we are not yet prepared to go the length (with Ray Lankester) that "away go the restrictions imposed by the physicists on geological time, who are now willing to give us not merely a thousand million years but as many more as we want," we may at least consider the radium emanation in association with the vast volume of helium discovered by Lockyer in the solar atmosphere and contemplate the entirely new and deep significance of such an influence in relation to the sustaining causes of an unwaning energy. Howbeit, experimental verification has yet to show that the ample superstructure reared by mathematicians and physicists upon the apparent properties of radium is well-founded and worthy of general acceptance.

The first paper received by the Geological Society on Foreign Geology came from Madeira and was published in the first volume of Transactions in 1811; and it is certainly impossible to gaze upon these same Myocene Atlantic rocks where these words have taken shape; to contemplate in the clear-cut vertical faces of the stupendous sea cliffs the history of many a long period, now of volcanic activity, and again of long repose and slow erosion—all bearing testimony to the reiterated obliteration and renewal of old habitable surfaces—and to view the many forms of living things which have either long ago developed locally or are surviving emigrants from a former Myocene continent, without a deep sense of the vast antiquity of the structure thus slowly evolved. The changes here registered, moreover, have been accomplished in the region subject only to the placid flow of time, to slight climatic changes and disintegrating agencies; and when we consider that the whole epoch involved is but a small and later part of the Myocene division of the Tertiary formations in the tremendous series of all the earth's stratified deposits—almost all of them associated with impenetrable periods of erosion and denudation, we may surely ask the mathematician if his mill has to be reset, to deal gently with the geologist, and to afford him all reasonable scope for his vast meditations.

But again, "the cosmic process is really simpler than the biological" (Kant), and although the conviction may be settling in the minds of nature-searchers that matter from the beginning possessed, or was given, potency in the evolution of living tissue, the deep gulf between the inorganic and organic is at present quite unfathomed. Neither have we any knowledge of an organising tendency in any concourse of atoms (? fortuitous), pointing out a way to us towards transition. The only living substance known to us is the offspring of parental tissue, and it is quite inconceivable that we can ever hope to reproduce and imitate synthetically that which is already impressed and specialised by antecedent association—whether by molecular arrangement or otherwise—for growth and development in a certain course, however accurately we can analyse the mere physical qualities of organised material. Hence the physicist is not afraid to assert that the commencement of life "certainly did not take place by any action of chemistry or electricity or crystalline grouping of molecules, under the influence of force, or by any possible kind of fortuitous concourse of atoms." "We must pause face to face with the mystery and miracle of the creation of living creatures" (Kelvin), while the biologist is equally confident that "the whole analogy of natural operations furnishes so complete and crushing an argument against the intervention of any but what are termed secondary causes in the production of all the phenomena of the universe; that, in view of the intimate relation between man and the rest of the living world; and between the force exerted by the latter, and all other forces, I can see no excuse for doubting that all are co-ordinated terms of nature's great progression, from the formless to the formed, from the inorganic to the organic, from blind force to conscious intellect and will" (Huxley). Lucretius is on the same side.

> "Haud, ut opinor, enim mortalia saecla superne
> Aurea de coelo demisit funis in arva
> Nec mare nec fluctus plangentis saxa crearunt,
> Sed genuit tellus eadem quae nunc alit ex se."[1]

Formerly the mere enunciation of the latter views would have exposed the present speaker—whose orthodoxy would have availed him nothing—to the condemnation of the potent theologists of past times. But the modern investigator may proceed in peace of mind, for they who in the dawn of geology so ingeniously wrought upon the simple narrative in the first chapter of the grand old Book are equal to another effort, and it is impossible to contemplate the progress of the New Theology and the attenuated views of Inspiration now prevalent without reflecting that it may yet be the task of the geologist to restrain the theologist. The "educability" of the latter is far advanced and it is probable that if life were manufactured in a laboratory to-morrow the impiety would be received in sullen acquiescence, with the third only of the usual three struggles in the theological assimilation of a scientific truth.[2]

I do not, however, presume to suggest that the biologist is about to give us a practical illustration of life as a property of matter—let me rather relegate the nebulous problem to the elucidation of my successor at your next centenary celebration. It is enough to give thus a vivid realisation of the bewildering breadth of the path of investigation into which geology is inevitably being led by the growing ties of collateral science, and the increasing difficulty of a patient worker in a single track, as of palæontology or petrology, to keep in touch with the speculative deductions which often outrun the progress of substantial observation. Let such a worker apply himself to your motto: "Atque non disputando adversarium, sed opere naturam vincere, denique non belle et probabiliter opinari, sed certo et ostensive scire." Doubtless we are tending to a higher pitch and elevation of thought, and from the commanding view posterity will take, our present position will seem to betoken the yet early condition of our knowledge, and perhaps the penury of our mental

[1] Lucretius, 50 B.C., De Rerum Natura, ii. 1153.

[2] (1) It is not true. (2) It is nothing new. (3) It does not signify

resources and the inveteracy of the prejudices in which we are still immersed.

We, Sir, of the College of Physicians, have now entered upon the 389th year of our corporate existence; we took part in your foundation, as we fostered the rising of the Royal Society 150 years before you; and in the plentitude of our priority and precedence, our wide influence acquired by the promotion of natural knowledge, we infer the assurance of your progression from the solid foundations on which you are building and from the eminent services you have already rendered. Your progress will not slacken; discovery will beget discovery; practical work, prudent and sagacious, will regulate the scope of generalisation, and knowledge will overflow—to the benefit of mankind, the credit of our race, and the honour of the Geological Society of London.

Τεθεμελιωτο γὰρ ἐπὶ τὴν πέτραν.

A NOTE ON A RECENT EPIDEMIC OF TRYPANOSOMIASIS AT MAURITIUS.

BY ALEXANDER EDINGTON, M.D. EDIN., D.P.H. EDIN. & GLASG., F.R.S. EDIN.,

LATE DIRECTOR OF THE GOVERNMENT BACTERIOLOGICAL INSTITUTE, GRAHAMSTOWN, CAPE COLONY;

AND

JOHN MORTON COUTTS, M.D. LOND., D.P H. CAMB.,

LATE SENIOR ASSISTANT AT THE GOVERNMENT BACTERIOLOGICAL INSTITUTE, GRAHAMSTOWN, CAPE COLONY.

IN recent years no disease, in its relation to man and animals, has been productive of greater interest than trypanosomiasis. Apart from the fact that epidemics among animals have occurred in countries widely separate and that it has seldom been possible to point to the exact line by which infection has arrived, the determination that one species at least affects man, and, in general, the intractable order of the malady have sufficed to stimulate persistent investigation.

A brief consideration of the recent epidemic at Mauritius among the domesticated animals will suffice to show the danger to be apprehended from such an occurrence in its relation to the public finances and the interference with commerce, and also the more or less unsatisfactory outcome of scientific investigation.

The Island of Mauritius is mainly concerned, commercially, in the growth of sugar-cane, of which the collection is mostly made by Indian coolies, while cattle are used to a very great extent as the means of transport. About the end of the year 1901 a disease had made its appearance among the cattle, later among mules, and gradually extended, so that by the end of July, 1902, when one of us (A. E.) arrived at Mauritius to inquire into it the whole island was already infected. By this time, as is obvious, any attempt to deal with the epidemic by the slaughter of infected animals was impracticable, and the only course open was to safeguard, as far as possible, such animals as appeared healthy and to attempt to cure the sick. Among infected mules death was the rule; of the cattle infected considerable numbers made recovery, but the deaths, nevertheless, were so great as to impede the collection of the sugar canes.

Regarding the origin of the epidemic two views were open to consideration: (1) its importation from India; and (2) its previous existence in the island. The importation of cattle for Mauritius was ordinarily made from Madagascar, but towards the end of the Boer war, possibly owing to the heavy demands which had been made on Madagascar for cattle, there was a great difficulty in obtaining supplies for Mauritius. Under such circumstances the suggestion was made and acted upon to import some cattle from India. The first lot of ten animals were received at Mauritius on July 18th, 1901. One died from injuries, while the remainder went to one estate. No disease occurred on this place until nine months afterwards, at which time the island was already well infected. It is, however, to the second cargo to which suspicion pointed. This cargo arrived in September, 1901, and, according to the information obtained, no deaths occurred on board and all animals arrived in splendid condition. Many were sold in small lots, but it is interesting to follow up two big batches of 50 each which went to different areas. Of one lot which went to the district of Palma, 18 died during the latter part of November, 1901 Of the other 50 which went to Mare Seche, one animal died during a cyclone on Dec 5th, but no other death occurred until Jan. 7th, 1902. By May 14th, by which time the whole island was infected, seven of these Indian cattle had died and nine Madagascar animals. In the course of this inquiry, conducted with the personal assistance of the chief of the health department, veterinary surgeons, and representative planters, the history of every Indian animal which had been imported was followed up.

With reference to the suggestion that the malady had been already on the island the fact was elicited that a disease had been formerly known to occur in Mauritius among mules, and that the symptoms found during life and after death had had striking resemblances to those of the epidemic disease. Among those who affirmed this were medical men of the health department, veterinary surgeons, and planters. The investigator therefore reported[1] that while the evidence failed to establish the responsibility of the Indian cattle it tended to show that a disease similar to trypanosomiasis had already been in existence (at a former time) on the island, and he suggested that inquiry should be made in the adjacent islands to determine whether any similar disease or any suspicious cases had been found. Since then information has been acquired showing that a case of trypanosomiasis had actually been found in a cow on the adjacent French island of Reunion by Dr. Vassal of the Pasteur Institute in August, 1901, a period which antedates the appearance of the epidemic in Mauritius. Trypanosomes were found in great abundance in the blood, spleen, and kidneys, and although Dr. Vassal's attention was given to the matter he failed to find any other case on the island. Commenting on this, Laveran and Mesnil[2] say that the origin of the occurrence is the more inexplicable since the infected animal was one which had been born on the island. This island is about 100 miles distant from Mauritius.

This difference of opinion regarding the origin of the disease at Mauritius recalls the epidemic of trypanosomiasis at the Philippines. In that case Salmon and Stiles thought it to be a recent importation, but medical men and veterinary surgeons there maintain that a disease known as "calentura" formerly existed which was identical with the epidemic malady.

The African tsetse fly is known to be the carrier in infected areas of that continent of the trypanosome known as trypanosoma Brucei, but in Mauritius there is no such insect. On the other hand, a species of stomoxys is present in enormous numbers, and its biting powers and propensities are made painfully evident to anyone who comes near the cattle on the plantations By the kindness of Professor (now Sir E.) Ray Lankester we have had an authoritative opinion on the species sent to him by us. Mr. E. E. Austen reports as follows: "Stomoxys nigra Macquart, a species originally described from Reunion but widely distributed in the Ethiopian regions, since, as shown by the series in our collection, it is found right across Africa from the Gambia eastward." In Mauritius this fly is called [the "mouche bœuf." There was no difficulty whatever in finding enormous numbers of trypanosomes in the stomachs of these insects. Indeed, many of the film preparations made from the stomach contents were swarming with parasites. M. Daruty de Grandpré, curator of the museum at Mauritius, succeeded in infecting a healthy dog to which he applied eight flies. It has not hitherto been believed that stomoxys could be a carrier of trypanosomes, but the imputation conveyed by observation and experiment at Mauritius at the least calls for this point being investigated under circumstances where possible fallacy can be excluded.

Compared with the trypanosoma Brucei the Mauritius trypanosome seems smaller. If, however, the flagellum is included the lengths are nearly alike. The body of the Mauritius form is, however, somewhat shorter, and the flagellum longer than obtains in the trypanosoma Brucei. In the blood of animals in which either the tsetse or the Mauritius disease runs a chronic course, particularly in the rabbit, we have found on many occasions towards the latter period of the maladies irregular protoplasmic masses which agree with several described by Bradford and Plimmer[3] in

[1] Report to the Governor of Mauritius, 1902.

[2] Trypanosomes et Trypanosomiases.

[3] The Trypanosoma Brucei, the Organism found in Nagana or Tsetse-fly Disease, by J. R. Bradford, F.R.S., and H. G. Plimmer, F.L.S., Quarterly Journal of Microscopical Science, vol. xlv., N.S.

their account of the morphology of the trypanosoma Brucei. Under conditions which may by analogy be considered as unfavourable to the life of the parasites, peculiar forms may be observed. These are readily seen in blood which has been kept for some time after withdrawal or when other serum has been added to it. In such cases there is a tendency in some parasites to adhere by their blunt or posterior extremities. Where a number are concerned a veritable rosette may be formed. In fresh blood, however, it is not unusual to find examples. In the blood films of cattle running on the estates, which were made directly on the spot, not only were they common, but often two or three examples might be seen on the one field under observation. Bradford and Plimmer consider these as a manifestation of "conjugation," while Laveran and Mesnil qualify it as only occurring under abnormal conditions.

On Dr. Edington's return to South Africa from Mauritius he brought with him several guinea-pigs and a dog already infected with the Mauritius disease. One of us (J. M. C.), arriving in South Africa at a later date, carried with him, by the kindness of Professor John Rose Bradford, several guinea-pigs which had been infected at the Brown Institution, London, with tsetse-fly disease. The arrival of these animals at the Bacteriological Institute, Grahamstown, permitted experimental work to be undertaken, the results of which may be briefly alluded to.

Experimental Work with the Mauritius Trypanosomes.

Dog No. 1.—The animal was inoculated intravenously with one cubic centimetre of blood from an infected dog. Trypanosomes appeared in the blood on the seventh day. On the tenth day the blood was swarming with them. After five days they disappeared, but after a further period of three days reappeared and continued in great numbers until death, which occurred 35 days after inoculation. Usually the first appearance of trypanosomes in the blood is associated with a rise of temperature in the animals, but as the temperature curve attains its highest altitude for that particular febrile period the parasites begin to disappear and the temperature falls. After the fall trypanosomes again make their appearance and the fever recrudesces. The regularity of these phenomena suggests that high fever is inimical to the vitality of the parasites in the blood. Post-mortem examination of the dog revealed marked enlargement of the spleen and great anæmia. In some cases, especially in animals where the malady runs a fairly rapid course, there are few changes to be discerned after death.

Dog No. 2.—This animal was inoculated subcutaneously with 1·5 cubic centimetres of the blood of Dog No. 1. Parasites appeared in the blood three days after inoculation and the animal died 15 days after inoculation.

Dog No. 3.—Inoculated with the same dose and blood and at the same time as Dog No. 2. Parasites appeared two days, and the animal died 15 days, after inoculation. The spleen in this case was enormously enlarged and presented a peculiar raspberry colour which is by no means uncommon in this malady.

Dog No. 4.—Inoculated subcutaneously with five cubic centimetres of the blood of Calf No. 1. Parasites were seen sparingly until the twelfth day, after which they increased and remained numerous until death, which occurred on the nineteenth day.

Dog No. 6.—The inoculations made into this dog are of particular interest. On June 26th, 1903, five cubic centimetres of the blood of a calf were injected subcutaneously. The calf had been inoculated ten months previously, had developed parasites, had suffered from the disease, had recovered, and had been since that time frequently reinoculated with virulent blood. No infection was found to follow in the dog inoculated with the blood of this calf and accordingly it was again inoculated from the same calf on July 3rd, 1903. No infection followed. It was then inoculated with blood from another calf (which was then suffering from active infection). Eight days later parasites appeared in the blood in considerable numbers and augmented so rapidly that on the following morning the blood swarmed with them. The dog died suddenly on the ninth day.

Dog No. 7.—On Oct 16th, 1903, 0·5 cubic centimetre of the heart blood of an infected rabbit was mixed with 50 cubic centimetres of serum taken from an immune calf (the former of the two mentioned) and the mixture was injected subcutaneously. On the 21st a further inoculation of the same serum without infected blood was made. On the 22nd a few trypanosomes were seen in the blood and they remained numerous thereafter until death, which occurred on the eighteenth day.

Dog No. 8.—0·5 cubic centimetre of the blood of the same rabbit as was used in the preceding case was mixed with 50 cubic centimetres of serum from a horse which had been highly immunised against South African horse sickness and the mixture was injected subcutaneously on Oct. 16th. On Oct. 21st parasites were seen in the blood and the dog died on the thirty-third day.

The foregoing experiments show the great variation which is commonly found with this class of disease and which is not entirely attributable either to the amount of dose or the mode of infection. For the purpose of comparison we may briefly indicate the periods between the moments of infection and death which have resulted in our experiments in guinea-pigs, rabbits, and dogs with the tsetse fly and Mauritius trypanosomes respectively.

Mauritius disease.—Eight dogs: 35, 15, 13, 19, 17, 9, 18, and 33 days. Longest, 35 days; shortest, 13 days; average, 19·8 days. Seven guinea-pigs: 66, 49, 59, 51, 10, 30, and 10 days. Longest, 66 days; shortest, 10 days; average 39·3 days. Eight rabbits: 53, 59, 55, 2, 32, 53, 18, and 9 days. Longest, 59 days; shortest, 2 days; average 35·1 days. The enormous rapidity of the evolution of the malady in the case of one animal which died two days after intraperitoneal injection is inexplicable and fallacy seems eliminated since the animal was a healthy one purchased locally for the experiment. Since, however, inoculations made with its blood into a guinea-pig and a rabbit were followed by long periods of infection in both cases, it is probable that the cause must be looked for in an unusual lack of resistance and possibly in the mode of inoculation by intraperitoneal injection.

Tsetse-fly disease.—Two dogs: 10 and 11 days. Average, 10·5 days. Four rabbits: 15, 26, 21, and 26 days. Longest, 26 days; shortest, 15 days; average, 22 days. Six guinea-pigs: 35, 33, 25, 33, 17, and 17 days. Longest, 35 days; shortest, 17 days; average 26·6 days.

	Tsetse-fly disease.	Mauritius disease.
Dogs	10·5 days	19·8 days.
Guinea-pigs	26·6 ,,	39·3 ,,
Rabbits...	22·0 ,,	35·1 ,,

Thus for dogs, guinea-pigs, and rabbits the tsetse-fly disease appears to be lethal in less than two-thirds of the time taken by the Mauritius disease.

The Mauritius disease was also inoculated into some other animals. 20 cubic centimetres of blood from a horse infected with the malady, and whose blood was swarming with parasites, were injected subcutaneously into a young male pig. No trypanosomes were ever found in the blood and during three months subsequent to inoculation the animal never showed the slightest illness but became exceedingly fat. We regret that no animals were injected with its blood and hence, in view of the observations we shall have to refer to in connexion with goats, it is impossible to conclude that infection did not occur. A pigeon was inoculated by subcutaneous injection in the thoracic region with 0·5 cubic centimetre from Dog No. 1. No trypanosomes were ever observed in the blood subsequently. A horse was inoculated by intravenous injection with 20 cubic centimetres of the blood of Dog No. 2. Parasites appeared in the blood in small numbers on the fourth day and were swarming in the blood by the seventh day. Between this period and the sixteenth day they were again few in numbers and the temperature had fallen somewhat. On the nineteenth day no trypanosomes were to be seen. The animal now showed great œdema of the sheath which extended along the abdomen. From the twenty-first day parasites were exceedingly few until the thirty-first day, when the blood was once more swarming. The horse died on the following day. A calf (about 18 months old) was inoculated by intravenous injection with one cubic centimetre of the blood of a Mauritius dog on Sept. 4th, 1902. On the 8th, 9th, 11th, and 12th of the same month parasites were present in the blood in considerable numbers. From the 14th none were seen. On the 22nd the calf was reinoculated, by intravenous injection, with three cubic centimetres of the blood of Dog No. 1. No parasites were seen. On Oct. 8th it was inoculated for the third time, receiving 25 cubic centimetres intravenously and 100 cubic centimetres subcutaneously of the blood of the horse already mentioned which swarmed with parasites. No parasites were seen. On Oct. 28th a fourth inoculation was made

when it received 50 cubic centimetres intravenously and 100 cubic centimetres subcutaneously of the blood of the infected horse. On Nov. 3rd a very few parasites were found in the blood and on the following day the blood was found to be swarming. Thereafter none were to be seen. On Nov. 15th a fifth inoculation was made, giving it 50 cubic centimetres intravenously and 100 cubic centimetres subcutaneously of virulent blood. No parasites were seen for nearly three weeks, when on Dec. 4th a few were seen and again on the 18th and 24th of the same month. On the 29th they were numerous. A few were also seen on the following dates: Jan. 8th, 12th, 15th, 21st, 22nd, and 29th, and Feb. 4th, 11th, and 12th, 1903. No more were seen until May 20th, when suddenly on, and only during, that day the blood was swarming. On no previous occasion had so many been seen, and the numbers were so great as to make the blood appear to consist almost entirely of parasites. On the subsequent day it was found that no parasites could be seen, nor have they ever been seen since that date in this animal. Four weeks later, and on numerous occasions at later dates, it was attempted to obtain infection with this calf's blood in dogs, guinea-pigs, and rats, but every attempt completely failed. The calf seemed therefore to have developed an active immunity, but the better to assure ourselves of this determined efforts were made to reinfect it and to obtain infection after these operations. Thus on Nov. 2nd, about six months after the last appearance of trypanosomes in its blood, it was inoculated with 20 cubic centimetres of the blood of an infected dog On Nov. 3rd and again on the 5th white rats were inoculated with its blood. Neither of these, however, took infection but remained healthy. On Feb. 1st, 1904, we had fully assured ourselves that the animal had developed active immunity to the Mauritius disease, and as a control we injected 20 cubic centimetres of its blood into a rabbit which never became infected.

Experiment to determine whether an animal immunised to the Mauritius disease is also immune to the tsetse fly disease.—Immediately subsequently to this we inoculated the calf, now grown to a fair-sized ox, with 30 cubic centimetres (intravenously) of the blood of a dog infected with the tsetse-fly trypanosome. During 11 days subsequently to this we failed to observe any trypanosomes, but when the blood was used to inoculate a rabbit it proved virulent. The rabbit died 31 days after inoculation with the tsetse-fly disease.

Regarding the failure to observe trypanosomes in the blood of the calf during 11 days after inoculation it may just be said that cattle do not always show trypanosomes in their blood within this time. Thus of two calves which were inoculated with tsetse-fly disease—one, which received five cubic centimetres of the blood of an infected dog, never showed trypanosomes in its blood during observations extending over several weeks. In the case of the other, which received 20 cubic centimetres of the blood of an infected rabbit, a few trypanosomes were found in its blood four days after inoculation but never again during ten months of observation. Here be it noted that in the tsetse-fly regions of South Africa there is a popular belief that cattle attacked by the tsetse fly will show no signs of illness until the rains come, after which illness quickly develops. It would appear, however, that the strain of tsetse-fly disease with which we were working possessed a low order of virulence for cattle. At the same time it is noteworthy that inoculation of a Mauritius-immune ox with tsetse-fly disease showed that the animal was not immune to the latter malady. But as immunity to both trypanosomes was very soon established in the Mauritius-immune ox it is possible that the Mauritius disease assisted in establishing active immunity towards the tsetse-fly disease, although it could not do so completely of itself. It would also seem that for the previous reasons we are bound to regard the two trypanosomes as specifically distinct.

This, the first recorded demonstration of the fact that an active and a more or less permanent immunity towards a pathogenic trypanosome can be experimentally produced in animals, was first communicated to the Cape Government in the report of the director of the Colonial Bacteriological Institute in 1903. It is amply confirmed by the work of Laveran and Mesnil on smaller animals and by the results obtained in oxen at Mauritius and published in the report of the director of the health department of the island for 1904.

In the report of the superintendent of the Government laboratories of the Philippine Islands for 1903 Dr. Musgrave and Dr. Clegg consider that the trypanosoma Evansii and trypanosoma Brucei are identical, and hence that the latter, being of later discovery, should have no place in our nomenclature. They say: "The proof demanded is that they are different parasites and, until the proof is furnished, writers, in our opinion, are permitted to consider the trypanosomiasis of horses and a number of other animals as being due to an infection with trypanosoma Evansii."

We consider now that ample proof is furnished as to the specificity of trypanosomes the morphology and even pathogenic action of which may nevertheless be exceedingly similar.

Towards the end of 1904 by an unfortunate accident our stock of infected small animals ran out and our supply of infecting material was lost. With a view to re-establishing it we tried by every mode of inoculation possible to procure infection from cattle immunised to the Mauritius and tsetse-fly diseases respectively. All attempts in even enormous doses absolutely failed, and in this way was established, if that were indeed necessary, a striking demonstration as to the possibility of immunising cattle against these trypanosomes.

Dr. Lorans, medical director at Mauritius, also reports that cattle inoculated there for one of us (A. E.) in 1902 are still alive and that their blood is not infective to susceptible animals.

In the case of goats, experimentally infected with the Mauritius disease, some most interesting features were disclosed. Five Angora goats have been inoculated at different dates, of which all have died from the disease. The periods during which they survived were as follows: 96, 55, 43, 33, and 52 days. The longest period was 96 days and the shortest 33 days, while the average was 55·8 days. In the case of the second goat, which received 20 cubic centimetres intravenously and 50 cubic centimetres subcutaneously of the blood of a horse in which trypanosomes swarmed, one or two immobile bodies of questionable nature were seen on examination of the blood two days later. With this exception the most painstaking examination has invariably failed to detect the presence of any parasites in the blood or other fluids of these animals. Lumbar puncture was also resorted to in order to determine whether some parasites might not be found there, but here also the result of examination proved negative. One goat was killed during the late stage of its illness and a searching examination was then made by sections and smears of most organs—viz., the lungs, the heart, the liver, the kidneys, the brain, the spinal cord, and glands and various of its fluids. Examination, however, failed to show anything which could be considered as of the nature of trypanosomes. In the experiment only Angora goats were used and it would be interesting to determine whether in other species or in sheep similar results would follow the inoculation of the Mauritius disease. In the case of tsetse-fly disease Bradford and Plimmer state with regard to experimental inoculation that "the goat (species not defined) shows very little sign, and the organism is not found abundantly in the blood, but the animal gets œdema of the genitals, and the eyes become somewhat opaque. It dies in about two months after inoculation, with paralysis. The spleen is not enlarged; the nasal mucous membrane becomes swollen and interferes with breathing." In the case of the goats used by us the principal sign during life was the progressive emaciation which supervened and which proceeded to so great an extent that the animals became veritable skeletons before death overtook them. The mucous membrane became swollen, the breathing was obviously disturbed, and the opacity of the eyes was always most marked. Towards the end of the period the animals were invariably drowsy and scarcely moved even to feed. Indeed, the picture thus presented might be considered as analogous to the late stages of human trypanosomiasis when the condition of "sleeping sickness" has been established.

The remarkable and even rapid disappearance of trypanosomes from the blood of immunised animals into which large doses of these parasites have been injected is in all probability more or less accounted for by phagocytosis. We have seen ourselves, on the stage of the microscope, a white corpuscle attack and devour two trypanosomes in rapid succession. In this case the two parasites made up a bulk which seemed greatly superior to that of the white corpuscle itself, yet, remarkable to relate, very little evidence of increased bulk in the white corpuscles was noticed. It is therefore very probable that a cytolytic action is concerned in the process.

By the kindness of Dr. Lorans we are enabled to show a chart illustrating the progress of the disease in Mauritius from July, 1902, until the end of 1904. The figures prior to July, 1902, are not, unfortunately, available.

	Solipedes.	Bovines.
1902, second half	2185	2486
1903, first ,, ...	876	2083
,, second ,, ...	89	168
1904, first ,, ...	704	239
,, second ,, ...	119	21
Total mortality	3973	4997

Commenting on the figures submitted, the director of the health department states: "In 1904 the epizootic has been less virulent in both equines and bovines, but the improvement is specially noticeable in the cases of the latter.

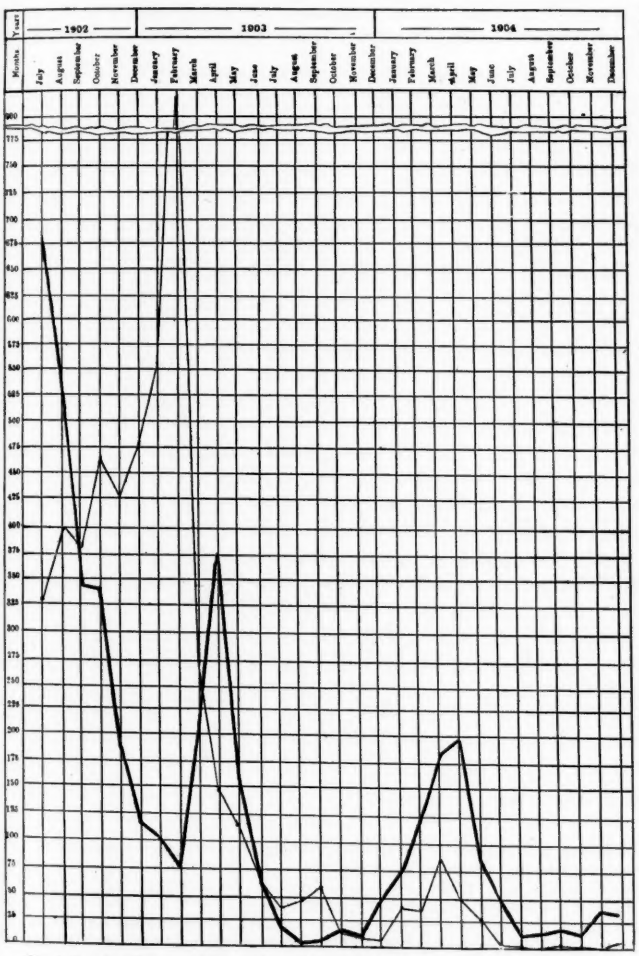


Chart showing the monthly number of bovines and solipedes which died from surra or were slaughtered on account of surra during the years 1902, 1903, and 1904. Thin line=bovines. Thick line=solipedes.

Allowances being made for the altered conditions of transport on the plantations and the variations in the number of animals yearly imported into the island, it seems possible to infer from the chart and other known facts that 'surra' has assumed a less virulent form among the cattle than equines, for the decrease in the number of deaths recorded for cattle in 1903 and 1904 is much more marked than the corresponding figure for equines during the same periods. The latter do not resist the disease, while the former frequently recover naturally so long as they are placed under favourable conditions. Experiments have shown that the disease can be harboured by bovines and that, under favourable conditions, cattle possess a natural resistance to the disease, since the animals experimented upon have been put to work and are, with the exception of one which, it is believed, died of accidental causes, in the best condition. Two bullocks treated in the manner indicated by Dr. Edington have given on two occasions negative results on rabbits, thereby apparently confirming his opinion that the injection of virulent surra blood may produce tolerance and recovery after a time." It may be gathered from this interesting report that Dr. Lorans is definitely of opinion that trypanosomiasis in Mauritius has become actually less virulent for bovines. Unfortunately, however, the animals which are continually being imported into Mauritius include mules as well as oxen, and, since in the former little or no resistance is found, the importation of these animals more than anything else tends to extend the duration of the epidemic.

Regarding the evolution of trypanosomiasis from the points of view of experimental inoculation and observation in naturally infected animals, it seems probable that the virulence of the infection in a specific locality may become altered in type and tend to assume a latent form in animals in which the disease usually runs a chronic course.

As regards the infection harboured by certain big game, it seems probable that it follows the line which has been observed in cattle, and hence, while younger animals may be in active infection for some months, probably the older ones become immune.

We regard the observations made by us concerning goats as of considerable import since in this animal, at least, the disease can exist in a form not readily recognised by blood examination; when, indeed, trypanosomes cannot be seen although the inoculation of their blood to susceptible animals is followed by the disease and appearance of the characteristic trypanosomes. Obviously, therefore, what has obtained in goats for this species of trypanosome, for aught that we yet know, might find its analogue in other animals for other species of trypanosomes.

The evidence shown by our experiments that it is possible to immunise cattle against the diseases caused by the tsetse-fly and Mauritius trypanosomes is of value since it establishes the possibility of preparing cattle to act as means of transport in infected areas.

It would be of great interest to determine the particulate form of the parasite in goats when trypanosomes are not evident. We have made one experiment of injecting filtered goat's blood into a susceptible animal but the result was negative. This experiment is worthy of further repetition.

Our experiments with serum derived from immunised animals do not warrant us in holding out any hopes that much practical utility is to be expected from this material.

NURSES' MISSIONARY LEAGUE.—Two valedictory meetings will be held in connexion with the Nurses' Missionary League at University Hall, Gordon-square, London, W.C., on Tuesday, Oct. 8th. An afternoon conversazione will be held from 2.30 to 6 P.M., and an evening meeting from 7 to 9 o'clock. These meetings have been specially arranged to bid God-speed to eight members of the Nurses' Missionary League who will leave England this autumn for foreign lands—five going to India and three to China. All friends interested in nursing and hospital life, whether at home or abroad, are invited to attend. Inquiries should be addressed to the honorary secretary, Miss Richardson, 52, Lower Sloane-street, London, S.W.

THE Bristol Medico-Chirurgical Society will meet at the medical library, University College, Bristol, on Wednesday, Oct. 9th, at 8 P.M., when the president, Dr. Henry Waldo, will give the inaugural address.

A CASE OF ACUTE LUPUS ERYTHEMATOSUS.

BY G. W. DAWSON, F.R.C.S. IREL.,
SURGEON TO ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN, LEICESTER-SQUARE, LONDON, W.C.

THE patient was a married woman, 43 years of age, who had had five children. She had enjoyed good health up to June, 1905, when a small spot appeared in front of the left ear, which was quickly followed by a similar patch on the opposite side of the face. These patches gradually increased and in January, 1906, when I saw her for the first time, she presented a very symmetrical eruption with sharply demarcated margins occupying the entire face, excepting the upper part of the forehead and the skin surrounding the orbits and mouth. The eruption was covered by adherent white scales and on the dorsal surface of the proximal phalanges were red patches showing dilated follicles filled by horny plugs. A biopsy was made and the microscopic appearance was that of a typical lupus erythematosus. The eruption underwent no change until Feb. 15th, 1907, when the left malar region became red and raw, exuding a slight clear discharge somewhat resembling an eczema rubrum. A few days later a symmetrical rash, consisting of dull red flat and discrete papules, appeared suddenly on the backs of the hands and in this condition she was exhibited at the February meeting of the Dermatological Society of Great Britain and Ireland.

The patient was admitted to hospital on March 1st, 1907, and on the 3rd her condition became much worse. The temperature rose to 103° F. at night. The scaly condition of the face became replaced by a bright red raw and bleeding surface. The epidermis was exfoliated from the palmar tips of the fingers and from parts of the palms of the hands, leaving a red dry glazed surface. On the 7th the papular rash extended to the wrists and forearms in groups of discrete papules, remaining thus for a couple of days, when large vesicles appeared on the summit of many of them. Temperature: morning, 100°; evening, 101°. About the 15th the lower lip swelled and rapidly developed large bullæ extending on to the mucous membrane of the cheek. They soon burst, leaving a raw surface which was constantly covered by bloody exudation. On the 20th the dorsal surface of the toes became affected in a similar manner to the phalanges, and shortly after a papular rash appeared on the dorsal surface of the feet, spreading up the leg as far as the knee in a few days time. A patch of erythema appeared suddenly over each olecranon and in 24 hours symmetrical bullæ as large as a hen's egg developed. On the 26th large bullæ appeared on the outer margins of the feet and on the legs. A symmetrical papular rash about four inches in diameter appeared on the gluteal region. The patient now showed signs of failing strength. A slight cough developed and the breathing became accelerated and albumin appeared in the urine. On the 28th similar patches to those on the gluteal region appeared on the scapulæ Temperature: morning, 99·4°; evening, 104°. The breathing gradually became more difficult and she passed into a state of coma in which she remained until her death on April 1st.

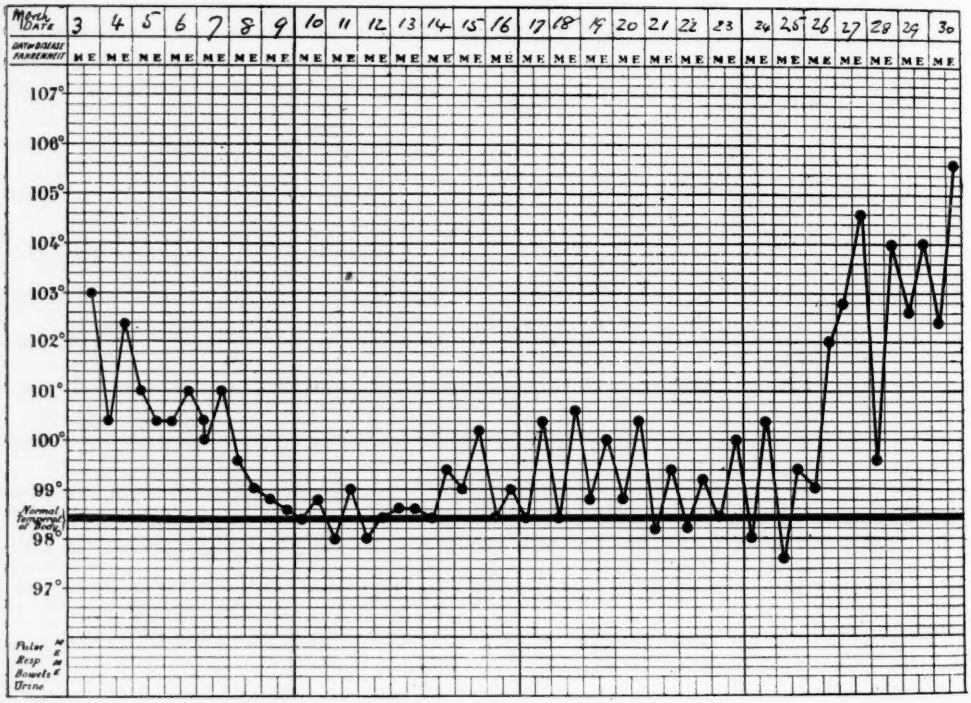

March
DATE
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
DAY OF DISEASE
FAHRENHEIT
M E M E M E M E M E M E M E M E M E M E M E M E M E M E M E M E M E M E M E M E M E M E
107°
106°
105°
104°
103°
102°
101°
100°
99°
Normal Temperature of Body
98°
97°
Pulse
Resp
Bowels
Urine

Chart showing course of temperature.

Post mortem the bases of both lungs were found to be semi-solid and gorged with dark venous blood. The upper part of the lungs was normal; there was no trace of tuberculosis. The kidneys were much enlarged, measuring five and a half instead of four and a half inches in length. The heart and other organs were normal.

It is seldom that cases of this description have been observed from beginning to end. Erysipelas has been assigned as a cause of this acute phase of the disease, but the remarkable symmetry, the discrete character of the eruption, there being skin of normal colour between the papules, the rapidity with which these and the bullæ developed, and the absence of pain or any feeling of even being ill until a few days before her death, are symptoms which bear little resemblance to that affection. So many cases of this acute disease have supervened on the application of an irritant to the chronic condition as to make one hesitate before applying carbolic acid or other strong application where the disease is at all extensive. The accompanying

chart, ranging from normal in the morning to as high as 105·5° at night, suggests an acute infective condition, as does the mode of death (septic pneumonia), which is the invariable end of those fatal cases of which I have record.

Portman-street, W.

TWO CASES OF HYPERPLASTIC TUBERCULOSIS OF THE CÆCUM TREATED BY EXCISION; RECOVERY.

BY W. GIFFORD NASH, F.R.C.S ENG.,
SENIOR SURGEON TO THE BEDFORD COUNTY HOSPITAL.

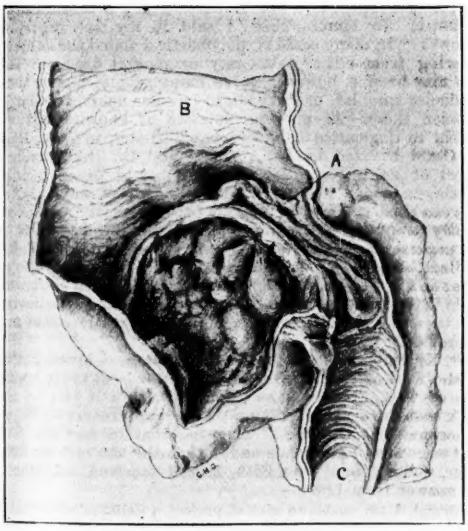
WHEN the cases which I am about to relate occurred very little attention had been given to the chronic hyperplastic form of tuberculosis of the cæcum and I have no doubt that many cases of this disease have been mistaken for cancer. In fact, when I operated on my first case I quite believed it to be a malignant tumour, and several pathologists to whom parts of the growth were submitted inclined to the same view, and it was not until the tuberculous nature of the second case was proved that I suspected the first to be of the same nature, and further examination of the specimen proved it to be so.

CASE 1.—The patient, a married woman, aged 30 years, was sent into the Bedford County Hospital by Dr J. B. Emmerson of Biggleswade on Feb. 20th, 1902, complaining that for some months she had suffered much pain and had noticed a lump in the right iliac fossa. Her father died in 1900 from lung disease at the age of 58 years. Her mother died in 1897 from cancer of the throat. The patient was one of a family of six, all of whom were alive and well with the exception of one sister who was suffering from pulmonary tuberculosis. She had two children, born in 1896 and 1900. She had suffered from sick headaches since puberty and of late had occasionally had diarrhœa, flatulence, and distension of the bowels.

On admission she was a thin woman complaining of pain in the right lower abdomen. In the right iliac fossa was a firm, tender, slightly moveable lump, of which the nature was doubtful. It was decided to explore it.

Operation was performed on Feb. 23rd, 1902. A median incision was made from the pubes to an inch above the umbilicus. The tumour proved to be situated in the cæcum,

FIG. 1.



the lower part of which was mainly involved. There were firm adhesions between the growth and the iliac fascia. The last inch of the ileum was firmly adherent to the cæcum and no trace of the appendix could be found. There were numerous enlarged glands in the mesentery and meso-cæcum. Clamps were applied to the lower end of the ileum and to the hepatic flexure of the colon, and the intermediate portion of intestine was removed with its corresponding mesentery. Murphy's button was used to unite the divided ends of the bowel and the junction was strengthened with sutures. An opening was made in the loin to provide dependent drainage. The anterior incision was completely closed.

The progress was good, except that on the tenth day there was some fever due to slight consolidation at the base of the left lung. On the same day the Murphy's button was passed. On April 2nd the patient left the hospital. On Dec. 8th, 1904, she had another child, and when seen by Dr. Emmerson on Oct. 12th, 1906 (four and a half years after operation), she was the picture of health. Since the operation she has had no indigestion, her bowels have acted once daily, the motions being formed, and the headaches have disappeared.

The parts removed (Fig. 1) showed a tough fibrous thickening of the cæcum (B) chiefly affecting the caput. The caput was occupied by a prominent mass, which in its growth upwards had involved and caused great narrowing of the ileo-cæcal orifice (A). The mucous membrane covering the mass was ulcerated. No trace of the appendix could be seen. The ileum (C) was considerably dilated. At the time of the operation I feared that the growth was malignant and the presence of enlarged glands seemed to confirm this, but examination of the sections prepared by Dr S. J. Ross has conclusively shown that the mass was tuberculous and that the enlargement of the glands was inflammatory.

CASE 2.—The patient, a man, aged 21 years was sent into the Bedford County Hospital on Sept. 14th, 1904, by Mr. A. Chilling worth of Bedford. His father died, at the age of 67 years, from prostatic disease, and his mother, aged 47 years, from cancer of the liver. They had seven sons and one daughter, the patient being the youngest. There was no history of pulmonary tuberculosis on either side. His history was that early in 1901 he had pleurisy with effusion, which was aspirated. He was laid up for eight weeks and afterwards went to Margate for a year. In March, 1902, he began to suffer from attacks of pain in the lower abdomen and used to vomit large quantities of food. At first these attacks occurred once a month, but as they became more frequent in February, 1903, he was seen by Dr. J. Mitchell Bruce, who agreed to the diagnosis of dilated stomach made by his medical attendant and put him on a limited diet. In March, 1903, he was admitted into Charing Cross Hospital where his right kidney was stitched to the parietes in the usual way. A lump was felt in the right iliac region before and after the operation and there was a suggestion that it was due to inflammatory exudation around an old appendicitis. After the operation he had good health until June, 1904, when he had acute pain all over his abdomen, but chiefly in the right lower quadrant, accompanied by vomiting. These symptoms continued on and off until his admission into the Bedford County Hospital.

On admission the patient was a rather thin, but otherwise healthy-looking, young man. Nothing wrong could be detected except in the abdomen, where in the right lumbar and iliac regions a hard mass could be felt. It lay exactly in the position of the cæcum and lower part of ascending colon and its long axis corresponded to the latter. It was of about the size of a kidney and was firmly fixed to the tissues behind the colon. Its upper end was below the costal margin. The right kidney could not be felt and there were no urinary symptoms. Whilst the hand was palpating the lump a coil of bowel in connexion with it would become distended with gas and when this passed on with a gurgle the distension collapsed, showing the existence of some obstruction of the bowel. The edges of the mass were well defined. It was evident that the lump caused a partial blocking of the bowel but there was room for fæces to pass on as the bowels acted almost every day, the motions being hard and formed. The absence of diarrhœa and mucus showed that there was no ulceration of the intestine. On the whole the symptoms suggested a growth in the wall of the cæcum and it was decided to explore this.

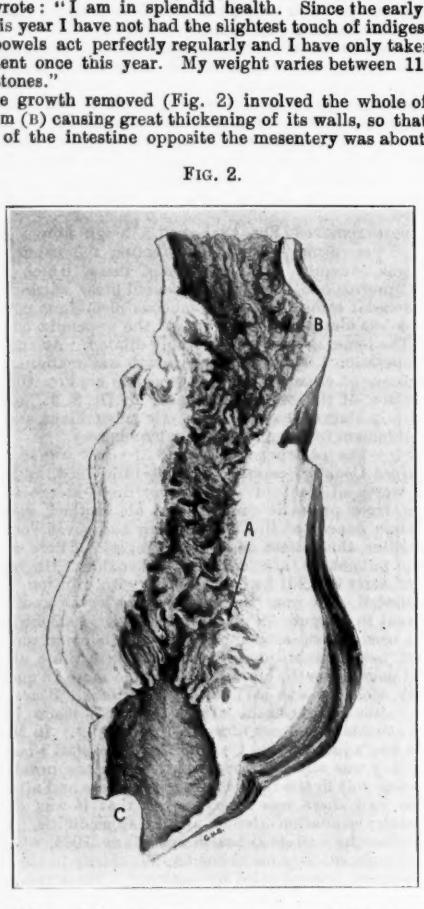
Operation.—On Sept. 19th an incision was made over the tumour which was found to involve the cæcum, ileo-cæcal orifice, and ascending colon. It was seen that the only way of removing it was by excising the mass and joining the distended small intestine to the colon. The mass, with the enlarged glands in the meso-cæcum and meso-colon, was cut away and the divided ends were united by simple suture. A counter-opening was made in the loin and a drainage-tube was inserted. The anterior wound was closed. Some

suppuration occurred and the anterior wound had to be opened, but this caused little general disturbance.

The wounds healed and the man left the hospital, eating ordinary food and looking very well. On Oct. 16th, 1906, he wrote: "I am in splendid health. Since the early part of this year I have not had the slightest touch of indigestion. My bowels act perfectly regularly and I have only taken an aperient once this year. My weight varies between 11 and 11½ stones."

The growth removed (Fig. 2) involved the whole of the cæcum (B) causing great thickening of its walls, so that the wall of the intestine opposite the mesentery was about one

FIG. 2.



inch thick. This thickening was very marked in the neighbourhood of the ileo-cæcal valve (A) and had caused great constriction of its orifice. The lower end of the ileum (C) was dilated, so that its lumen was greater than that of the ascending colon. No trace of the appendix could be found. There was no ulceration of the mucous membrane. The growth on section looked and felt like fibrous tissue and on microscopical examination by Dr. G. S. Haynes of Cambridge proved to be tuberculous.

Remarks.—Sixteen years have elapsed since Hartmann and Pilliet reported two cases of tuberculous tumour of the cæcum, one of which occurred in a female, aged 25 years, and suggested sarcoma, and the other was found post-mortem in an aged woman.

It is only within the last five or six years that attention has been drawn to hyperplastic tuberculosis of the cæcum in this country. In 1902 Mr. Mayo Robson reported two cases in a paper on Intestinal Tuberculosis read before the Clinical Society.[1] In 1904 Mr. J. Noon described a case[2] of tuberculous stricture of the ileo-cæcal valve operated on by Mr. W. Bruce Clarke with a fatal result. In THE LANCET of July 29th, 1905, Dr. R. Atkinson Stoney of Dublin published a case of successful excision of a tuberculous cæcum and gave a bibliography of the subject. Mr. C. B. Keetley, in THE LANCET of July 7th, 1906, p. 4, published a lecture on tuberculosis of the cæcum, ileo-cæcal valve, and appendix. At the Medical Society of London on Dec. 3rd, 1906, M. Hartmann of Paris gave an address on ileo-cæcal tuberculosis and discussed the subject exhaustively. In THE LANCET of Jan. 5th, 1907, p. 9, Mr. F. S. Kidd has published a paper on this subject under the title of "Hyperplastic Tuberculous Pericolitis."

The foregoing list of papers shows that of late this disease has received a large amount of notice, and my excuse for publishing the two cases operated on by me is the good result existing at considerable periods after operation. In the first case five years have elapsed and the patient is in perfect health; in the second case two and a half years have elapsed and the result is equally good.

In the diagnosis of this condition the chief difficulty lies between tubercle and cancer. This is fully discussed by Cumston and Vanderveer in a paper in the *Annals of Surgery*.[3] It is there stated that "tuberculosis of the cæcum in the beginning presents the same functional signs as carcinoma of the organ—namely, intestinal disturbances with alternating diarrhœa and constipation, violent colics, accompanied sometimes with vomiting, abdominal pains at first indistinct but which become localised in the right iliac fossa. Blood in the fæces rarely occurs in tuberculosis of the cæcum. Later on in its evolution tuberculosis takes on the clinical appearance of a tumour in the right iliac fossa, but the lymphatics of the mesentery become enlarged much more rapidly and more extensively than in carcinoma." In considering the diagnosis consideration must be given to the duration of the symptoms, to the presence of other tuberculous scars or lesions, and to the family history and age of the patient, as before the age of 40 years tubercle would be more likely to occur than cancer.

As to treatment, excision of the growth and glands holds out a good hope of recovery. Out of 229 operations collected by Hartmann there were 46 deaths. In my cases the end-to-end union of the divided bowel was rendered easy owing to the dilatation of the ileum above the obstruction.

I am much indebted to Dr. Ross, who assisted me at both operations, and to Dr. G. Harvey Goldsmith for the beautiful drawings of the parts removed.

Bedford.

[1] Transactions of the Clinical Society, vol. xxxv.
[2] St. Bartholomew's Hospital Reports, 1904, p. 128.

RELATION OF POLYMASTIA TO TUBERCULOSIS.

BY DR. TEIZO IWAI,

PHYSICIAN-IN-CHIEF OF THE JAPAN RED CROSS HOSPITAL; ATTACHED TO THE SUITE OF H.I.H. PRINCE FUSHIMI REPRESENTING HIS MAJESTY THE EMPEROR OF JAPAN.

WHILE making my investigation on the subject of polymastia[1] I happened to obtain accidentally a fact hitherto unknown. In March, 1896, I said in my first report as follows: "In many cases of polymastia I found the subjects suffering from either pulmonary or pleural disease. This fact may be due, however, to so many people having these particular troubles, or there might be some unknown relation between them. At my present state of knowledge I am unable to dogmatise in either way." Later, in May, 1898, Dr. Otani, assisted by Dr. Amemori and Dr. Hara, made a report of an investigation on a number of cases of polymastia, in which he denied the existence of any relation between them. Nevertheless, my experience since then constantly strengthened my belief of such a relation. Thus, in my papers read before the annual meeting of the Tokyo Medical Association held in April, 1900, I felt obliged to go so far as to state that I would have to declare the statement made in my first report in a more positive form, believing that there is a certain relation between the polymastia and tuberculosis.

Dr. K. Sato, who has been making earnest investigation on the subject, wrote in a private letter, sent to me under date of Feb. 21st, 1902, as follows: "I ask if you do not think that the cases of polymastia are more frequently found in consumptive patients." Knowing that he had not seen the two reports I had made on it I sent the abstract to him. Later, under date of Feb. 28th, 1902, I received the following answer from him:—

> Although I am unable to give at present a statistical statement I fully believe that cases of polymastia are found more frequently among consumptive patients. It is sometimes said that the necessary examination of the chest in the consumptive patients enables one to find them out; but I believe it is an utterly groundless supposition. In the Koseikwan Hospital where I am, the administration of anæsthetics is common as we have many female surgical cases. Thus the examination of the chest and abdomen is not confined to consumptive patients. In this place I have found that cases of polymastia are met

[3] Annals of Surgery, vol. xxxv., p. 50.
[1] See THE LANCET, Sept. 14th (p. 753) and 21st (p. 818), 1907.

with more frequently among consumptive people. (I regret exceedingly that I have not a statistical statement for you.) I know, however, that the positive assertion of this fact is rather a difficult task; but let us try our best to make a thorough study of the subject.

I read papers on this subject before the meeting of the Japanese Union Medical Society held in Tokyo, April, 1902. Later, in May, 1902, Dr. S. Otani, assisted by Dr. M. Sato, gave the result of his investigation on the matter in question made upon 10,279 out-patients of the Nagasaki Hospital from January, 1899, to June, 1901. In spite of his refusal to admit the existence of a certain relation between tuberculosis and polymastia in his first report I was pleased to notice that in his last minute report he approved the correctness of my opinion. I cite the following passages from his latest report: "1. When we compare the patients suffering from tuberculosis with those who do not, the cases of polymastia are found in greater number comparatively among the former. (This coincides with Dr. Iwai's experience.) 2. Those who have polymastia are more liable to be affected by tuberculosis than those who have not." In October, 1904, Dr. K. Sato reported that he found, on his own examination, 19 real and suspected tuberculous patients out of 29 cases of polymastia and came to the conclusion that "the cases of polymastia are to be recognised in greater number among tuberculous patients"; in other words, "those who have supernumerary nipples are prone to be affected by tuberculosis."

Out of 6274 patients examined by me, both at my home office and at the Red Cross Hospital, I found 315 cases of polymastia, which gives a ratio of 5·02 per cent. of the total number. Dividing the total number according to sex, out of 3665 male patients I found 120 cases, or 3·27 per cent., and out of 2609 female patients I found 198 cases, or 7·58 per cent. I perceived, therefore, that the latter is more than twice as large as the former. Now, out of the total number of 6274, there were 1449 real and suspected tuberculous patients. Out of the 1449 tuberculous patients 119 had supernumerary nipples, that is, 8·21 per cent. of the total number. When this is compared with 196 cases of polymastia found in non-tuberculous patients numbering 4825, which show a ratio of only 4·06 per cent., we find that the former is nearly twice the latter. As stated, I found that there were 119 real and suspected tuberculous cases among 315 cases of polymastia, or a ratio of 37·77 per cent. When this is compared with 1330 real and suspected tuberculous cases out of 5959 cases which are not the subjects of polymastia, or 22·31 per cent., the former is seen to be more than 15 per cent. larger than the latter.

The following tables will illustrate the relation of polymastia to tuberculosis:—

TABLE I.—*Cases of Polymastia among Real and Suspected Tuberculous Patients.*

Number of patients.		Cases of polymastia.	Percentage.
Male	848	44	5·18 per cent.
Female	601	75	12·47 ,,
Total	1449	119	8·21 ,,

TABLE II.—*Cases of Polymastia among Non-tuberculous Patients.*

Number of patients.		Cases of polymastia.	Percentage.
Male	2817	73	2·59 per cent.
Female	2008	123	6·12 ,,
Total	4825	196	4·06 ,,

TABLE III.—*Real and Suspected Tuberculous Patients among Cases of Polymastia.*

Cases of polymastia.		Number of patients.	Percentage.
Male	117	44	37·60 per cent.
Female	198	75	37·87 ,,
Total	315	119	37·77 ,,

TABLE IV.—*Real and Suspected Tuberculous Patients among Cases of Non-Polymastia.*

Cases of non-polymastia.		Number of patients.	Percentage.
Male	3548	804	22·66 per cent.
Female	2411	526	21·81 ,,
Total	5959	1330	22·31 ,,

The following tables have been published by Dr. S. Otani and others who have made special investigations upon the subject following its presentation by myself. I have much pleasure in inserting them here for reference.

TABLE I.—*Cases of Polymastia among Real and Suspected Tuberculous Patients.*

Number of patients.		Cases of polymastia.	Percentage.
Male	1273	30	2·4 per cent.
Female	648	42	6·5 ,,
Total	1921	72	3·7 ,,

TABLE II.—*Cases of Polymastia among Non-tuberculous Patients.*

Number of patients.		Cases of polymastia.	Percentage.
Male	5695	81	1·4 per cent.
Female	2663	111	4·2 ,,
Total	8358	192	2·3 ,,

TABLE III.—*Real Tuberculous Patients among Cases of Polymastia.*

Cases of polymastia.		Number of patients.	Percentage.
Male	111	22	19·8 per cent.
Female	154	28	18·2 ,,
Total	265	50	18·9 ,,

TABLE IV.—*Real Tuberculous Patients among cases of Non-polymastia.*

Cases of non-polymastia.		Number of patients.	Percentage.
Male	6,857	981	14·3 per cent.
Female	3,157	452	14·3 ,,
Total	10,014	1433	14·3 ,,

The above facts suffice to prove the correctness of my belief and leave not a shadow of doubt as to the existence of a certain relation between polymastia and tuberculosis. The scientific explanation of this relation I will leave for the present.

Conclusions.—1. The cases of polymastia are found more among the tuberculous—especially pulmonary—patients than among the non-tuberculous. The former are nearly twice as numerous as the latter. 2. Those who have polymastia are more liable to be affected by tuberculosis than those who have not. The difference between them is more than 15 per cent.

An alphabetical list of works concerning the study of the relation between polymastia and tuberculosis.—Iwai, T.: Über die Accessorische Brustdrüse (Mittheilungen der Medicinischen Gesellschaft zu Tokyo, März, 1896, Band x., No. 5); Zur Hyperthelie (Ibid., Juni, 1900, Band xiv., No. 12); A Study on the Relation between Polymastia and Tuberculosis (Report of the First Annual Meeting of the Japanese Union

Medical Society, October, 1902); La Polymastie au Japon (Extract des Archives de Médecine Expérimentale et d'Anatomie Pathologique, fondées par J.-M. Charcot, et publiées par MM. Grancher, Joffroy, Lépine, No. 4, Juillet, 1904. Otani, S.: Beobachtungen über die Hypermastie (Mittheilungen der Medicinischen Gesellschaft zu Tokyo, Mai, 1899, Band xiii., No. 9); Nachtrag zur Hyperthelie (Ibid., Mai, 1902, Band xvi., No. 10). Sato, K.: Ein Fall von Regeneration der Polymastie nach einer Operation (Ibid., Oktober, 1904, Band xviii., No. 20); Polymastie et Tuberculosis, Extrait de No. 4 (La Presse Médicale, No. 82, le 3e Octobre, 1906).

THREE CASES OF LOBAR PNEUMONIA WITH UNUSUAL COMPLICATIONS.

BY P. C. P. INGRAM, M.B., B.S. LOND.,
ASSISTANT MEDICAL OFFICER TO ST. GEORGE'S INFIRMARY, FULHAM-ROAD, S.W.

CASE 1.—The patient was a man, aged 22 years. His previous medical history was unimportant, but he had recently been drinking rather heavily. He was admitted to St. George's Infirmary on the second day of his illness. He showed the characteristic signs of commencing consolidation at the base of his left lung, with high temperature, dyspnœa, and herpes on the lips. In addition, there was a patchy erythematous rash on the palmar and dorsal surfaces of the hands and plantar and dorsal surfaces of his feet. There were a similar area about two inches square on the left side of his face below the malar prominence and a few smaller ones on the abdomen and back. Except that for the first five days there was no expectoration, and then that it was white though viscid, the symptoms and physical signs were all those of a severe lobar pneumonia, and by the fifth day of his illness the signs of solid lung had extended upwards as far as the level of the scapular spine. The rash began to fade on the day after admission, first on the hands and feet, but on the fifth day of illness fresh patches appeared on the trunk. Two days later these were also much less distinct, but a few others more punctate in character appeared on the arms and legs. By this time the whole of the left lung except the apex of the upper lobe was involved: there were, however, no signs of pericarditis and but little of dilatation of the right side of the heart, but much restlessness and delirium. The temperature, hitherto varying from 100° to 103° F., now fell but did not reach normal for 24 hours, but signs of œdema of the right lung appeared and he died on the ninth day of illness. Permission to make a post-mortem examination could not be obtained.

CASE 2.—The patient was a man, aged 60 years. He had had fair health up to the commencement of the winter (six months previously), since when he had been troubled with cough and three months ago had an attack of "influenza" which kept him in bed for three weeks. Since then the cough had been worse and he had been losing flesh, but was able to get about. He was taken acutely ill the day previously to admission to St. George's Infirmary with dyspnœa, tight cough, and blood-stained expectoration. On admission there were slight pyrexia (99·2° F.), dyspnœa, cough, and much rusty sputum. There was no herpes. The right lung was affected, showing dulness on percussion in front over the lower portion and behind over the mid-scapular area with a corresponding part in the axilla. Above the note was high pitched and below it was normal. Bronchial breathing and consonating râles were heard over the dull area. The left lung was clear except for a few scattered râles. The area of cardiac dulness was normal but the sounds were rapid and weak. On the following day the lung signs had spread a little upwards and in addition there were a patchy erythematous rash on the hands and wrists and a few faint patches on the legs. There was moderate pyrexia, the evening temperature reaching 100°. A diastolic bruit could now be heard in the aortic area. On the fourth day of illness the rash had faded considerably; a pleural rub was now heard in the left axillary region. On the following day the patient died suddenly.

Necropsy.—The post-mortem examination showed a lobar pneumonia involving the upper lobe and upper half of the lower lobes of the right lung. At the apex of each lobe it had reached the stage of grey hepatisation, being less advanced in the intervening part of the lung. The rest of the right lung was congested and the left lung was œdematous, with some recent pleurisy over the middle of its lower lobe. There were scars of healed pulmonary tuberculosis at the apices of both upper lobes. The heart was enlarged, slightly fatty, and there was atheroma of the aorta involving one of the cusps of the aortic valves. The kidneys were slightly granular. The other organs were normal.

CASE 3.—The patient was a man, aged 36 years. His previous health was good. He had a rigor and pain in his left side the day before admittance to St. George's Infirmary. On admission his temperature was 103° F.; there were signs of early pneumonia as shown by dyspnœa, cough, rusty sputum, and faint friction sound at the base of the left axilla, and on the following day definite signs of pneumonia as shown by bronchial breathing and consonating râles in that area. He was already severely ill on admission, the pulse being rapid and feeble and the urine contained a trace of albumin. The sputum examined two days after admission showed a fair number of pneumococci but no influenza or tubercle bacilli. The pneumonia was of a severe type with moderate pyrexia (the temperature varying from 99·0° to 102·4°) and much toxæmia. By the sixth day of illness bronchial breathing could be heard up to the apex of the lung behind. On the seventh day the temperature fell by crisis with diarrhœa and sweating. Signs of cardiac dilatation became marked at the same time but the heart improved under treatment, strychnine being pushed to the extent of hypodermic injections of the liquor, five minims every four hours, in addition to moderate doses of digitalis and alcohol. On the day that the temperature reached normal a papular erythematous rash appeared on the legs and back, being most marked on the knees, buttocks, and shoulders, and at the same time a purpuric rash in the left iliac fossa. The rash began to fade on the following day and was gone in another two days. By this time the lung showed signs of "clearing up" and convalescence appeared to be commencing. On the next day, however, there were some reappearance of pyrexia and signs of pneumonic infiltration at the opposite base. In two days the signs had spread up to the level of the spine of the scapula. Jaundice now appeared and by the next day was intense. The inflammation of the lung did not spread much further on this side of the chest and two days later showed signs of subsiding, the temperature never very high, falling by lysis and the jaundice diminishing at the same time. The urine no longer contained albumin, though the chlorides were still deficient. Three days later he developed a left-sided parotitis; this lasted for some four days, the temperature going up to 103°. The lungs in the meantime were clearing but slowly, the right in particular still showing signs of consolidation over the base. At the end of a week from its commencement the parotitis was well, but two days previously to this he had complained of pain in the hypogastric region and slight tenderness on pressure was noticed there. At first no obvious cause could be found for this, the urine being normal and the bowels satisfactory, but two days later there was a definite sense of resistance on pressure being made a little above the pubes in the middle line. Nothing, however, more definite appeared at the time. The temperature still remained irregular and there were impaired percussion note and diminished air entry at the base of the right lung, and he still had a cough with now a good deal of purulent sputum. The lung was accordingly explored by needle but no pus was found, and a few days later, his condition remaining unimproved, was again explored but without success. Meanwhile a painless swelling had been forming in the hypogastric region where previously had been felt that sense of resistance; it was exactly in the middle line, not more than two inches in diameter, without heat, redness, or tenderness. A couple of days after the time the lung was explored a second time the swelling began to increase more rapidly in size and then to fluctuate, so the skin having been anæsthetised by hypodermic injections of eucaine and adrenalin it was explored and found to consist of an abscess beneath and between the recti muscles. Several ounces of pus were let out and the cavity was drained. A culture of the pus gave pure pneumococci. After this the temperature began to settle and a week later it was normal. The lung signs slowly cleared up and a fortnight later the right was clear and a few râles only could be heard at the left base on deep breathing, and the patient was well enough to get up. A week later these had disappeared; he was up all day and gaining flesh and strength and went out to look for work some three weeks later.

These cases are recorded as examples of the rarer complications of lobar pneumonia. Each had an erythematous rash and Case 3 a purpuric rash as well. Case 3 had in addition parotitis and a pneumococcal abscess.

Except for the characteristic herpes of the lips skin lesions

are uncommon in pneumonia. A purpuric rash does occasionally occur. Seven cases were seen and recorded by Thomas.[1] Urticaria is still less common, but has been described by Traube[2] and Schrötter.[3] I have been unable to find any record of an erythema, though the "malar flush" occurring on the same side as the affected lung has been described by several writers.[4] Parotitis is a very rare complication. In 5738 cases recorded in Vienna by Fismer it occurred only once. Only four cases have been recorded in English medical literature. It is said to be most common in pneumonia occurring in the aged and most of the recorded cases were fatal. So far I have not been able to find many recorded cases of pneumococcal abscess and none occurring apart from cases in which a pneumococcal arthritis existed as well. Two of the latter have been described by Nathan Raw,[5] one occurring in the abdominal wall and the other in the thigh. A friend of mine had one in the abdominal wall occurring in his private practice some years ago and though this case was not verified bacteriologically the clinical history was very similar to the others described.

I am indebted to Dr. J. C. Muir, medical superintendent, for permission to publish these cases.

Fulham-road, S.W.

A CASE OF PRIMARY CANCER OF LEFT BRONCHUS, WITH UNUSUAL ASSOCIATION OF PRESSURE SYMPTOMS; SECONDARY GROWTHS IN THYROID AND LYMPHATIC GLANDS.[1]

BY GEORGE A. ALLAN, M.B. GLASG.,

TUTOR IN CLINICAL MEDICINE, WESTERN INFIRMARY; ASSISTANT TO THE PROFESSOR OF PRACTICE OF MEDICINE, ANDERSON'S COLLEGE, GLASGOW.

THIS case seemed worth recording not only on account of the comparative rarity of the pathological condition but also because of the somewhat unusual association of pressure symptoms which developed in the course of the disease.

The patient, a man, aged 38 years, was admitted to the Western Infirmary, Glasgow, on June 20th, 1906, under the care of the late Dr. James Finlayson, whose resident assistant I was at that time. His complaint was of pains in the left side of the chest, above the clavicle and in the left arm, and also of shortness of breath, all of about two months' duration. In January of the same year he had been treated for "pneumonia with pleurisy" of the left lung. This illness began with chill and was characterised by stabbing pain in the side, cough, and expectoration of "thick, sticky, brownish-red material." He was in bed four weeks and all his symptoms disappeared and he returned to work two weeks later. He remained at his work and was free of all symptoms for over a month, but about the end of April he began to suffer from pains which developed in the lateral region of the left chest and extended to the front and towards the left clavicle. Then the pain extended to the left shoulder, shooting down toward the elbow, and sometimes was so severe as to prevent him using the limb. He continued at work till early in June, notwithstanding the severity of the pain, though he was occasionally laid up for a day or two. Other symptoms had now supervened. He had severe paroxysmal cough coming on at short intervals, with a frothy white or yellowish expectoration, and the fits of coughing were frequently associated with vomiting and he also suffered from breathlessness on exertion, general weakness, hoarse and weak voice, and loss of appetite, flesh, and colour. His loss of weight was over two stones since the beginning of his illness. Prior to the illness in January his health had been good but for tonsillitis in earlier years. There was no history of injury to the chest or of syphilis. He took alcohol daily in varying amount. His family history was vague, but probably his mother died from malignant disease in the abdomen.

On admission to hospital his temperature was 98·6° F., his pulse was 108, and his respirations were 32 per minute. He was moderately emaciated, with wasted limbs, hollow cheeks, sunken eyes, and the face presented a general sallow appearance with dilated capillaries over the malars. There were pigmented areas on the sides of the face and neck, with pale patches between, the resulting appearance suggesting vitiligo. He was weak and easily became breathless and had a spasmodic cough with muco-purulent expectoration showing no trace of blood. His voice was husky but weak. There was distinct fulness of the chest on the left side, both in the supra- and infra-clavicular regions, especially toward the sternum. The intercostal spaces, while visible on the right side, were filled out on the left, and dilated veins ramified over the surface of this area, which was also pigmented. There was no pulsation in this region. At the level of the nipple the left side measured 17 inches and the right side 17¾ inches. The right lung appeared to be normal on physical examination. Expansion of the left side of the chest was practically absent. On percussion there was absolute dulness in front from the level of the second rib downwards and behind from the level of the third dorsal spine downwards. Above the second rib in front resonance was "Skodaic" in quality. Over the dull area vocal fremitus and resonance were absent, as was also the respiratory murmur. The heart's sounds were, however, well conducted over this area. No râles were heard. The left arm was swollen as compared with the right, although the patient was right-handed. Above the left clavicle a hard mass could be felt on the deep surface of the sterno-mastoid muscle at its origin and further out enlarged and indurated glands could be isolated above and on the clavicle. Enlarged lymphatic glands were also felt in the left axilla along the axillary vessels. Nothing abnormal was noted in the circulatory or urinary systems. The appetite was poor and the tongue was coated. There was vomiting, sometimes accompanied by coughing, but there was no dysphagia. Physical examination of the abdomen for a tumour was negative. The pupils were unequal, the left being contracted, responding only slightly to light or on convergence. Movements of the eyeballs were unimpaired. There was slight ptosis of the left eyelid. The left vocal cord was fixed in the cadaveric position while the movements of the right cord were free and it crossed the middle line on phonation. The knee-jerks were present but not exaggerated. The patient was under observation in the wards for three months and became progressively weaker. He had frequent attacks of dyspnœa, and breathing at all times was carried on with some degree of difficulty. The temperature was remittent in type throughout, there being a daily range of about 2½° F. The afternoon temperature reached about 102° on an average—the maximum being 103·4°—and the lowest morning reading was 98°. Expectoration was never abundant and was muco-purulent in character and never at any time was it observed to contain blood. Various organisms were present in it but no tubercle bacilli or any cancer tissue. The swelling of the left arm increased and during the later weeks pain in the shoulder and down the arm was the chief complaint, for which morphine was regularly administered. The pain in the right side which developed three weeks before death was found to be due to pleurisy, and friction was detected. The pain disappeared, and as after this time the patient was exceedingly weak and made no particular complaint a detailed examination was not made and so a pleural effusion on the right side was overlooked. Physical signs on the left side remained practically unaltered throughout, but râles were detected on rare occasions. Within a week or so before death local hyperidrosis developed, affecting only the right side of the head and face, that is on the opposite side to the pulmonary lesion. The perspiration was so profuse while it lasted that the sweat dropped from his hair and face on to his shoulder. This was noted on two or three occasions. Generalised sweating had been a feature during the illness but it was only at these times that the local form was seen. He died quietly on Sept. 25th, 1906, five months after the onset of definite symptoms and eight months after the "pneumonia."

Necropsy.—The left lung was strongly adherent to the ribs, filling the thorax and extending beyond the middle line, while the heart was slightly displaced to the right side. There was a great deal of diffuse hardness in the anterior mediastinum, the connective tissue in which was found to be œdematous, harder and more fibrous than usual. The right

[1] Gerhardt's Handbuch, Band iii., S. 657.
[2] Symptomen, p. 65.
[3] Sitzungsbericht der Wiener Academie, Band lviii., S. 57.
[4] Wilson Fox: Diseases of Lungs.
[5] Brit. Med. Jour., Dec. 21st, 1901.

[1] A paper read at a meeting of the Glasgow Medico-Chirurgical Society on May 3rd, 1907.

pleural sac contained 80 ounces of clear serous fluid with recent fibrinous exudate over the greater part of the lung but no tumour or tubercles were seen in this lung. About the root of the lung there was a great deal of matting with obvious cancerous affection of the glands, most marked on the left side but also quite distinct on the right. The right main bronchus appeared to be normal. The left main bronchus was found to be blocked by masses of white tumour tissue springing from its walls all round. On being slit open it was found to be completely blocked by tumour tissue which formed an irregular annular growth completely encircling it just below the bifurcation of the trachea. Processes of the tumour extended along one or two bronchi but most of these were free from it. There were several small isolated tumours in the lung. The main tumour was situated close to the origin of the great vessels and all the structures there were strongly matted together by fibrous adhesions and tumour. The lung was riddled with small abscesses having very much the appearance of tubercles which had spread by the bronchi, but microscopically these were found to be abscesses with much chronic inflammatory change round them. There were also several more distinct abscesses, the largest, near the centre of the upper lobe, being a cavity of the size of a walnut. The bronchi were distended with pus which on staining was seen to be swarming with organisms of various kinds. The left pleura was, for the most part, greatly thickened and the pleural sac obliterated by a thick layer of œdematous connective tissue, except at the base where it was filled with a firm dry fibrinous exudate of some age. Several small white tumours were found imbedded in the pleura or connective tissue layer about the inner aspect of the apex of the left lung. There was extension to the pericardium by direct continuity of tissue from the main tumour. The two layers of the pericardium were glued together for the most part by fairly recent fibrinous exudate, but toward the base and at various points over the surface of the ventricles there were plaques of tumour tissue buried in a firmer adhesion. Tumour masses surrounded the first part of the aorta and extended along the coronary arteries and auriculo-ventricular groove, especially towards the left. The parietal layer showed few tumours, except at the exit of the great vessels, where there was a plaque of white tumour tissue. The myocardium was soft and flabby; the plaques of tumour tissue on the surface were quite superficial and did not infiltrate the muscle. There were a few small vegetations on the aortic valves. The left subclavian vein contained a mass of recent thrombus, with a certain amount of old thrombus in its centre but no organisation of the clot. Both recurrent laryngeal nerves were dissected out. The left had a congested appearance and was imbedded near its origin in tumour tissue which also involved the trunk of the vagus. The right nerve was quite free from involvement and was distinctly paler in colour than the other. The right sympathetic trunk was found about the middle of the neck and was traced for some distance but no involvement in tumour could be made out. In dissecting the nerves a number of secondarily infected glands was found in the upper part of the neck but not involving the nerves. Enlarged lymphatic glands were also felt above both clavicles and on the left side there was considerable diffuse thickening around them. Some were also found below the jaw on the left side. The thyroid was of normal size. The posterior part of the left lobe was imbedded in strong matted connective tissue and about two-thirds of this lobe was found to be distinctly harder than the rest and was not enlarged; in fact, the furthest back portion of the lobe appeared to be rather contracted. On section it was found to be somewhat gritty and a number of small yellowish masses were seen in it. The liver was free from tumour tissue.

On microscopic examination the tumour in the wall of the main bronchus was found to present in the main the characters of scirrhous carcinoma, but the cells were rather larger than those of an ordinary scirrhus of glandular origin and occasionally occurred in large masses instead of the ordinary small processes. Numerous multinucleated cells were seen. There was a considerable tendency to necrosis in the larger cell masses. The whole bronchial wall was replaced by tumour which also formed thick fungating masses projecting into the lumen. The tumour in the lymphatic glands and the whiter and more opaque portions of the thickened pleura were found to consist of tumour of the scirrhous type. The affected part of the thyroid was seen to be infiltrated with carcinomatous growth, the cell masses of which were large and rounded and frequently showed central necrosis and were composed of somewhat large, plump, polygonal or rounded cells. There were also many multinucleated cells and irregular protoplasmic masses in these cell processes. The cells resembled those in the tumour in the main bronchus and it was thought that they were all of the same origin and that the difference in the mode of growth was due to the nature of the tissues in which they were developing. The left recurrent laryngeal nerve was found to be degenerated, no medullated nerve fibres being stained by the Weigert-Pal method. The right nerve presented little alteration from normal.

Remarks.—Malignant disease of the lungs, while not an absolute rarity, is still comparatively uncommon and is much less common as a primary than as a secondary affection. In an analysis of 1000 malignant tumours from 9246 necropsies at Breslau (1881–1894) Pässler[2] found 870 cancers and 130 sarcomas, and of these 16 cancers and four sarcomas had their primary seat in the lungs. Wilson Fox,[3] in 112 cases of malignant disease of the lungs recorded in the first 33 years of the Pathological Transactions (1846 onwards), found 38 cases primary, 64 secondary, and ten doubtful, and of these only one was a primary scirrhus. No attempt has been made to collect the recorded cases and consequently one cannot speak with authority, but it would certainly appear from the records observed that primary scirrhus of the lung is an exceedingly rare occurrence. Metastases also from primary lung cancer other than to lymphatic glands are uncommon. Secondary growths in the liver are much less common than are secondaries in the lung from liver disease. Walshe[4] found only one undoubted case of cancer of the lung in which other *organs* became secondarily involved though from published cases he recognised that it did occur. Fox[5] mentions as possible sites of secondary growths, skin, testicle, liver, brain, and kidney. The only organ known to be affected in this case was the thyroid, and while the question might be raised as to that being the seat of the primary growth, still the size of the tumour there and the clinical history of onset with preceding attack of apparently acute pneumonia, seem to leave no reasonable doubt that the primary seat was in the bronchus.

No real difficulty presented itself in the diagnosis of the present case, but frequently in the absence of characteristic signs or secondary glandular involvement the diagnosis may be extremely difficult or even impossible. From the point of view of physical signs Stokes[6] divided these cases into three types: (*a*) isolated tubercles; (*b*) degeneration of whole or part of a lung into homogeneous cancer; and (*c*) mediastinal tumour. The physical signs found are thus very variable. Associated with percussion dulness there may be increased vocal fremitus and resonance and tubular breathing, or there may be diminished fremitus and resonance and absence of respiratory murmur. These differences may depend on the degree of implication of the communicating bronchus, its occlusion leading to diminution of vocal fremitus, vocal resonance, and respiratory murmur, as in this case, where the main bronchus was occluded by tumour tissue and the other bronchi were blocked with pus. Thickening of the pleura which was also present would tend to give similar results. These two sets of opposite signs are well exemplified in two cases of lymphosarcoma of the mediastinum involving the lung recorded by Lindsay Steven.[7] The presence of dilated veins over the affected side and enlarged glands on or above the clavicle or in the axilla are of great assistance in diagnosis.

The expectoration may be characteristic. Stokes[8] laid great stress on the "currant-jelly-like" expectoration and described it as having "the appearance of black currant jelly, and gave the notion of pure mucus and pure blood mechanically blended." It is, however, not present in all cases and according to some observers is not present in the majority of cases. Walshe[9] found hæmoptysis of some kind in 72 per cent. of his cases. There was no trace of blood at any time in the expectoration of this patient. Pain is a fairly constant symptom and may be due

[2] Virchow's Archives, Band cxlv., p. 191. Pässler: Ueber das Primäre Carcinom der Lunge.
[3] Fox: Diseases of the Lungs and Pleura, 1891, p. 1165.
[4] Walshe: Cancer, p. 339 (quoted by Fox).
[5] Fox: Diseases of the Lungs and Pleura, 1891, p. 1136.
[6] Stokes on Diseases of the Chest. Sydenham Society, 1882, p. 413
[7] Mediastinal Tumours, John Lindsay Steven, 1892, pp. 13 and 17.
[8] Stokes on Diseases of the Chest. p. 416.
[9] Walshe: Diseases of the Lungs, 1871, p. 401.

to implication of the pleura or to nerve irritation from pressure or involvement. Pressure symptoms may be due to secondary involvement of glands in the mediastinum or elsewhere or to direct involvement of nerve trunks in the tumour tissue. The œdema of the arm was found to be due not simply to pressure on glands (if at all) but to thrombosis of the subclavian vein. In this case the trunk of the vagus and the origin of the left recurrent laryngeal nerve were implicated, leading to paralysis of the left vocal cord and possibly also to the paroxysms of dyspnœa, while it may also have been a factor in the production of the vomiting. Pressure on the sympathetic nerve trunk on the left side (although not demonstrated) would account for the contraction of the left pupil observed during life, a sign of intrathoracic disease emphasised by Gairdner.[10] The same lesion would also account for the partial ptosis by paralysing Müller's muscle, the band of unstriped muscular fibres connected with the tarsal plate in the upper eyelid and innervated from the sympathetic. This association of ptosis with myosis has been frequently observed. Contraction of the pupil would negative the idea that the ptosis might be due to a "third" paralysis.

Unilateral sweating in these cases is of very rare occurrence and in the number of cases noticed recently in reading it has only been noted in three, while Lloyd,[11] who writes a lengthy article on this condition, does not even mention cancer of the lung as a possible cause. Of the three cases, in one reported by Darolles[12] it was associated with herpes zoster and pain in the thorax, while in two recorded by Kilgour[13] it seems to have been similar in character to that now recorded, except that in them it occurred on the affected side, while in this it was on the opposite side. It was by him thought to be due to pressure on some vessel, but on which he did not know. The explanation offered by Dr. Finlayson was that it was due to pressure on the sympathetic nerve by glands, thus interfering with vaso-motor control. Enlarged glands were present but no lesion of the sympathetic could be demonstrated.

The pathology of local hyperidrosis is still an open question. In the article by Lloyd above referred to about 20 cases are mentioned and it is found in association with a variety of conditions—e.g., cerebral tumour and abscess,[14] cervical caries, aneurysm,[15] hemiplegia, monoplegia, diabetes, Graves's disease, dementia, general paralysis, tabes, affections of the fifth or seventh cranial nerves, and pressure on, or injury to, the cervical sympathetic, and sometimes it appears to be a functional disorder. Lloyd thinks it is due to irritation of the sympathetic and its frequent association with dilated pupil and widening of the palpebral fissure is used as confirmatory evidence. On the other hand, others observers, notably Riehl,[16] maintain that in by far the greater number of cases hyperidrosis is associated with dilatation of blood-vessels and myosis—i.e., consequent on sympathetic paralysis. The point at issue seems to be whether the sweating is produced by the action of independent secretory nerve fibres or whether it is dependent on dilatation of blood-vessels. It seems probable that either of these conditions may produce it and the fact that sweating may accompany either flushing or pallor might be adduced in favour of this contention.

In conclusion, I have to acknowledge my indebtedness to Professor Robert Muir for permission to use the post-mortem records and to Dr. John H. Teacher who performed the necropsy and placed his microscopic preparations and notes at my disposal.

Glasgow.

[10] Gairdner: Edinburgh Medical Journal, vol. i., 1855, p. 71; Clinical Medicine, p. 526.
[11] Lloyd: Twentieth Century Practice of Medicine, vol. xi., 1897, p. 455.
[12] Darolles: Cancer Pleuro-Pulmonaire, 1877, p. 15 (quoted by Fox).
[13] Kilgour: Edinburgh Monthly Journal, 1850.
[14] Clifford Allbutt: System of Medicine, 1899, vol. viii., p. 724.
[15] Osler: Principles and Practice of Medicine, 1901, pp. 971 and 782.
[16] Riehl: Hyperidrosis Unilateralis, quoted by Lloyd, Twentieth Century Practice, vol. xi., p. 460.

FATAL EXPERIMENTAL DOSE OF CARBOLIC ACID.—Dr. H. Powel, professor of pharmaceutical chemistry in New York, while experimenting on himself on the power of alcohol to act as an antidote to carbolic acid, seems to have taken a larger quantity of carbolic acid than he intended, for he began to exhibit symptoms of poisoning soon after taking it and died shortly afterwards.

A CASE OF RUPTURED ANEURYSM OF THE POPLITEAL ARTERY

IN A MAN, AGED 73 YEARS, THE SUBJECT OF CHRONIC LEAD POISONING, SUCCESSFULLY TREATED BY LIGATURE OF THE SUPERFICIAL FEMORAL.

BY THOMAS J. T. McHATTIE, M.B., CH.B. EDIN.

ON June 30th, 1906, the patient, a man, aged 73 years, while crossing the road was knocked down by a passing cab. Beyond a very slight bruising of his right shoulder he was apparently not much hurt, as he was able to pick himself up and proceed to his work, at which he remained for the rest of the day. On his arrival home in the evening, however, he suddenly felt faint and, losing consciousness as he entered his door, fell full length upon the floor and was carried to his bed, where he remained unconscious for a short time. Recovering from his swoon he drank some tea and then fell asleep. The day following he remained in bed in a more or less dazed condition, rousing himself at intervals to take food. On July 3rd he sent for me and gave me the above account of himself. The appearance which he presented on this my first visit to him was that of a wasted and feeble old man who although he had not in his recent accident sustained any actual bodily injury was, nevertheless, suffering from the effects of a shock which in his enfeebled state he felt severely. On closer examination, however, features were revealed which showed that the case was likely to prove far more serious than at first sight appeared. On stripping him I was immediately struck by the extremely wasted and almost helpless condition of his upper limbs. There were marked atrophy of the deltoids as well as of the extensors of the fingers and wrist and flattening of both thenar and hypothenar eminences. The supinators, though badly developed, appeared to be less affected than the other muscles. With the muscular atrophy there was corresponding loss of power of the extensors, but though the hands were cold and bluish in colour there was no impairment of sensation. On passing to the lower limbs I found that the left popliteal space was occupied by a round ill-defined swelling of about the size of a small orange in which there were marked expansile pulsation and a loud bruit, both the pulsation and the bruit ceasing when the femoral artery was compressed at the groin. The foot was slightly swollen, cold and blue, and hung helplessly by its own weight in the position of extension. There was complete absence of pulsation in the arteries at the ankle-joint and sensation was considerably impaired over the calf of the leg, the dorsum and the sole of the foot, and absent in the toes. In the right leg and foot there was no impairment either of muscular power or of sensation. The heart and lungs were sound and the urine contained no abnormal constituent. The vascular system showed extensive degenerative changes, as seen by the thickening and tortuosity of the radials and the prominence of the surface venules of the face and nose. The patient's aspect was dull and apathetic, his memory was defective, and his speech was slow and deliberate. When asked a question he appeared to ponder for some moments before he could arrive at an answer, so that it was only with considerable difficulty and with the exercise of some patience that I was able to elicit the required information as to his past history, habits, &c.

His history was briefly as follows. His age, as already stated, was 73 years. He had been occupied from boyhood in the printing trade; he had for the last 30 years or so been engaged as a printer's reader, during which time his work consisted, as he himself expressed it, in "sitting in an armchair most of the day and often far into the night reading," and involved, therefore, no strain or severe exertion whatever. He had never practised athletics; he showed no evidence whatever of syphilis, gout, or rheumatism; nor had he ever been addicted to alcoholic excess. His life, indeed, appears to have been a regular and uneventful one, passed almost entirely in the employ of a single firm, and exceptionally free even from the ordinary anxieties which illness and lack of occupation entail. 17 years ago (1890), upwards of 15 years, that is, after he became a printer's reader and ceased to handle type, and more than 40 years since he first entered a printing office, he was seized with an attack of what he called cramp, which, affecting

first one arm and hand and then the other, began as a feeling of "pins and needles" in the arm. Soon the fingers and wrist of the affected hand became weak and the movements of extension difficult, though he was always able, more or less, to use his hand. At no time was there any spasm or tremor. There was no colic, nor had he, indeed, ever suffered from this. In a short time under treatment with electricity and massage the condition improved, though only then to a certain extent. About two years ago he was suddenly seized with shooting pains at the back of the left leg and thigh and about the same time he noticed a growing weakness of the left foot, which caused the toes to drag as he walked and necessitated his using a crutch. At no time did he notice any swelling at the back of his knee, nor, until I pointed it out to him, was he aware of its existence. His family history was remarkably good, for his father lived to the age of 72 years, when he was killed by an accident, his mother died at the age of 79 years, his only brother died in infancy, and his sister, a few years younger than himself, is still alive and well.

The above history along with the patient's condition pointed, I think, pretty conclusively to a diagnosis of chronic lead poisoning; and as this was complicated by a popliteal aneurysm of no small size in a man considerably advanced in years and whose arteries showed every sign of senile degeneration, the prospect was by no means alluring. Nor was this improved by the patient's circumstances, or by his steadfast refusal either to enter a hospital, or to allow me to do what I could beyond the mere giving of medicine for the relief of his local affection. It was not until August 9th, and through the kindness of his employers, that I was able to persuade him to enter a nursing home and to undergo treatment by ligature of the superficial femoral artery. At this time the case appeared to be desperate and I had considerable misgivings as to what the ultimate result of ligature would be. His age, his general lack of nutrition, and the state of his arteries were all against him; add to this the fact that the swelling at the back of his knee had vastly increased and had invaded the surrounding parts. The knee-joint was filled with fluid and there was some œdema over the internal condyle. The pulsation in the tumour had become less evident, his temperature was raised, his pulse rapid, and his tongue brown and dry. All pointed to rupture of the aneurysm, if not to septic infection round the sac, the former point being assured by exploration with a hypodermic needle revealing the presence of blood in the joint. It was obvious, therefore, that if ligature were to be of any service no time was to be lost, and accordingly, on August 10th, with the assistance of Dr. J. Clark, senior house physician at the Great Northern Central Hospital, I cut down and ligatured the superficial femoral at the upper end of Hunter's canal. For the ligature sterilised silk was used, and a general anæsthetic being deemed inadvisable local anæsthesia was produced by the hypodermic injection of eucaine and hemisene solution. The latter proved highly satisfactory, there being practically no pain or bleeding. Shock was minimised by a hypodermic injection of strychnine $\frac{1}{30}$th grain, and morphine one-quarter grain before the operation. The limb was then swathed in cotton wool and placed upon a pillow, with a hot bottle at the foot. Beyond some slight lividity which appeared about the inner side of the great toe and foot on the second day, the re-establishment of the circulation in the affected leg and foot was soon placed beyond a doubt; but how feeble that circulation was was proved later when after about a fortnight had elapsed, and all the cotton wool had been removed, including that between the toes, a small slough formed at the points of pressure between the great and second toe and resulted in an ulcer which has since proved most intractable. The wound healed by first intention and the stitches were removed on the tenth day. After a few days some slight pulsation could be felt in the course of the artery below the ligature; but this disappeared and at no time was there any recurrence of pulsation in the aneurysm sac, which gradually diminished in size and appeared to consolidate. Some pain and swelling remained for some time in the knee-joint but was relieved by firm bandaging, though the joint still remained "weak."

A troublesome complication arose about the middle of the second week after the operation in the shape of retention of urine, which persisted for some weeks and then gradually improved under the usual treatment along with 10-minim doses of liquor strychninæ. As no prostatic enlargement could be felt per rectum it has appeared to me feasible to regard this symptom as forming part of the general toxic muscular atrophy rather than as a simple atonic condition of the bladder walls, but whether this was so or not is, perhaps, open to doubt. While the patient was still in the home I discovered what I had not before suspected—a small fusiform aneurysm of the right popliteal artery. As this was no more, however, than a mere dilatation of the vessel circumstances did not appear to me to demand more than the application of a supporting bandage as a palliative measure.

On his return to the somewhat squalid surroundings of his own home it soon became apparent that the patient missed the careful nursing and attention which he had received in the nursing home. The ulcer between his toes refused to heal and in rather more than six months from the time of the operation he began to develop senile gangrene in the great toe and dorsum of the foot. He was then sent into the Great Northern Central Hospital, where amputation through the thigh was performed by Mr. E. C. Stabb. In spite of his age and infirmity this very severe operation was also highly successful, for he made an uninterrupted recovery and once more returned home, to all intents and purposes cured.

Apart altogether from the interest which attaches to this case in virtue of its successful ending there are in it several points which are worthy of note. Aneurysm is extremely rare either very early or very late in life, and after the age of 70 years the percentage of reported cases is very small indeed. Precisely what was the cause of the disease in this particular instance it is impossible to say with any degree of certainty. That the aneurysm existed prior to the accident which first brought the case under my notice is probable. The fact is at least suggested by the history of pain in the leg and foot and the foot drop, which began at least two years ago and which, though it may possibly be traced to the lead, is far more likely to have been due to the pressure of an aneurysmal sac on the popliteal nerves. The sudden strain occasioned by the fall, though no actual local injury was sustained, probably acted as an impetus to the already existing disease and was sufficient to bring about the urgent symptoms which I have related. Taking into consideration the quiet regularity of the patient's life, free from excesses and from the other causes which are generally credited with the production of aneurysmal dilatation, it seems to me not unlikely that the toxic influence to which he had been exposed all his life in the shape of that most subtle of all poisons, lead, may have had not a little to do with the causation of his aneurysm; and, further, that it is to this quiet and humdrum existence that he owes the fact of his having been spared until so late a period what might otherwise, *ceteris paribus*, have been his fate in much earlier life.

Another point of interest in the case is the remarkably slight amount of circulatory disturbance which appeared to follow the application of a ligature to the main artery of his limb. This is no doubt due to the fact that the pressure of the sac had already occluded the popliteal artery and that for some considerable time the circulation in the leg had been carried on through collaterals, the danger of gangrene after ligature of the vessel being by this means considerably mitigated.

Thanks to the careful supervision to which the workers in lead are subjected at the hands of the Home Office authorities, cases of chronic lead poisoning are nowadays becoming comparatively rare. In spite of this, however, owing to the ease with which the poison is taken into the system and to the carelessness of the workmen, the disease is, and always will be, a very difficult one to eradicate. In the printing trade cases occur from time to time among compositors and typesetters, though the proportion is very small, and for a long time I was at a loss to understand how my patient, who for upwards of 30 years had been employed as a printer's reader, had managed to imbibe the poison. Naunyn,[1] indeed, reports a remarkable case of a proof-reader who was poisoned by reading printed proofs for many years, and Marmisse[2] includes among those who are subject to the poison journalists who have constantly to handle freshly-printed sheets damped with lead-impregnated water; but it was not to be my fate to be allowed to add to such singular examples, for I discovered the prosaic fact that my patient had been in the habit for years of eating his dinner in the room in which he

[1] Ziemssen's Encyclopædia of the Practice of Medicine, vol. xvii., p. 561.

[2] Jaccoud: Dictionnaire de Médecine.

worked in the office, the air of which, it is admitted, was laden with lead dust. The curious fact therefore is not that he became poisoned but that for over 40 years he worked among these surroundings without harm. This prolonged period of apparent immunity from the effects of the poison among those daily exposed to its influence has been frequently observed and commented upon. According to Tanquerel[3] the effects of lead may show themselves as early as eight hours after first coming in contact with it or may be delayed for a period of 52 years. More curious still are those cases in which symptoms appear months or even years after all contact with lead has ceased, as in the case of a painter related by Naunyn who had yearly attacks of lead colic and other troubles for nine consecutive years after leaving his business.[4] This is probably to be explained, as Dr. T. Oliver suggests,[5] on the hypothesis that the lead becomes deposited in some of the organs in an insoluble form, until, as the result of some particular diet, drink, or medicine, it is rendered soluble and circulates afresh in the blood, the patient becoming poisoned with lead absorbed from his own tissues. Lead is eliminated chiefly by the liver and the kidneys, and also to some extent by the skin; anything, therefore, which tends to interfere with the free action of these organs would be likely to precipitate an attack of poisoning in one whose circumstances rendered this possible.

Upper Holloway, N.

Reviews and Notices of Books.

Labour and Childhood. By MARGARET MCMILLAN, author of "Early Childhood and Education through the Imagination." London: Swan Sonnenschein and Co., Limited. 1907. Pp. 205. Price 3*s.* 6*d.*

THIS book, written by an enthusiast who has a profound knowledge of children and who has acquainted herself with the best of the literature on education, has a threefold aim. Firstly, to make clear the immediate task which lies before the school medical attendant; secondly, to show the trend of the only continuous education which the race has received—namely, the trend of education through work and experience; and lastly, after having considered what is being attempted already by the school medical attendant in this and other lands, to try to indicate the probable line of advance in his work. As the author points out in her preface, the old political parties no longer face each other in the field alone, another is between them; the masses have awakened, as it were, suddenly, and it is certain that they will look at every question of human interest, and amongst others education, from a new standpoint and with a new aim. There is much reference in this book to the worker with his hands and to the school medical attendant, and an attempt is made to show that on these two depends human progress and that there can be no great advance in education until their relation to one another is understood in schools and the function of each is represented more or less by those who have to prepare the youth of any generation for their life work.

After two chapters on Diseases and their Causes and Defects and their Consequences, in which the important questions attending the occurrence of disease and mental and other defects amongst school children are considered, the author devotes a number of chapters to tracing the manner in which man, struggling for life with creatures stronger than himself, gradually learnt to do what none of them had done—namely, to make tools, and in doing so how he climbed, as it were, out of his lower self, reached beyond it, and began to understand it. In pursuance of this theme there are chapters on the projection of hands, the child hand to-day, the projection of sense organs, of movements, and of nerves. A chapter follows on the hygiene of instruction and after a consideration of the position of the school medical attendant in other lands Miss McMillan shows that not only does he already exist in this country but that he has made marked progress in his work and has already travelled far beyond the original conception of his duties—namely, the supervision of the physical health of the children under his charge. With the help of the teachers he has thrown new light on the physiology of teaching and has opened up new methods for the training of the mentally defective, and on such important questions as fatigue, the meaning of character and behaviour, the processes and order of growth, and the order of development of human faculties his researches have already borne fruit and cannot but improve and in many instances revolutionise the science and art of teaching in the future. His work is really only just beginning, and if this suggestive and instructive book helps to develop and to further that work the author will, we are sure, feel well rewarded for her labours. It is a book to be read by all those interested in the teaching and training of the younger generation.

[3] Traité des Maladies de Plomb ou Saturnine, vol. ii., p. 19.
[4] Ziemssen's Encyclopædia, vol. xvii., p. 564.
[5] Lead Poisoning, p. 25.

International Clinics. A Quarterly of Illustrated Clinical Lectures and especially prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pædiatrics, Obstetrics, Gynæcology, Orthopædics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene, and other Topics of Interest to Students and Practitioners. By leading Members of the Medical Profession throughout the World. Vol. I. Seventeenth Series. London and Philadelphia: J. B. Lippincott and Co. 1907. Pp. 318. Price 35*s.*

THIS volume opens with a lecture on the Psychic Treatment of some of the Functional Neuroses, by Dr. L. F. Barker, who treats of hysteria, neurasthenia, traumatic neuroses, hypochondria, and psychasthenia. The author lays stress on, as the most important factor, the making of an accurate anatomical, physiological, and etiological diagnosis in the patients who present the nervous symptoms; this having been made, the treatment will consist in rest, isolation, and psychotherapy, the last being the most valuable; whilst, in addition, it is necessary to employ certain adjuvant measures, such as diet, electricity, drugs, and so on. He points out how in these cases a "Christian Science practitioner" may occasionally achieve a marvellous success, but that for one such success many failures are unrecorded and disastrous results brought about. Dr. F. P. Gay next details the Recent Advances in the Prevention and Cure of Tuberculosis. In this article we are glad to notice that the opinion of Koch as to the innocuousness of the milk of tuberculous cattle receives no approval. Dr. D. Somerville discourses on the Diagnosis and Treatment of Gastric Ulcer. This lecture, although short, is one of the most valuable in the series, as the symptoms—pain, hæmorrhage, and hyperchlorhydria—and the treatment are succinctly yet comprehensively described. The author points out the special characters of the pain which is dorsal and which also occurs at a small circumscribed area in the epigastrium and at the height of digestion. He lays stress on the regularity of its occurrence—a valuable point of diagnosis from the pain of mere hyperchlorhydria, in which affection many days may pass with the patient wholly free from pain. In the treatment Dr. Somerville lays stress on the necessity of rest for the stomach, no food being given by the mouth for three days; for the hæmorrhage an icebag to the epigastrium and 30 minims of ergot injected hypodermically are recommended. Food by the mouth is to be given only on the fourth and fifth day after the hæmatemesis has ceased. Unbroken rest in bed for at least three weeks, followed by a fortnight's rest on the couch, is a *sine quâ non*, whilst when the hæmorrhage has been very severe and endangering life normal saline injections may have to be resorted to. Lastly, the manner in which the diet

is to be regulated is admirably given. Dr. J. J. Walsh writes on Functional Heart Disease and his lecture is followed by an excellent account by Dr. A. S. Warthin of the clinical diagnosis of Enlargement of the Thymus Gland—a subject which we cannot remember to have seen so thoroughly treated before. In this lecture the reader will find the symptoms and physical signs of this condition completely delineated and illustrated by an excellent radiogram comparing the normal child's thorax with that of a patient suffering from an enlarged thymus. The treatment in its curative aspect is carried out by intubation, Röntgen irradiation, and operative and antisyphilitic measures. Dr. G. W. Norris contributes a lengthy dissertation on the Functional Capacity of the Heart, and the section on Medicine then closes with the article by Dr. J. Diller on Exhaustion and Toxæmia as underlying Factors in the production of Neurasthenia, Hysteria, and Delirium.

In the Surgical section we find in the lecture by Dr. F. S. Dennis a very good *résumé* of the results of two months' service at Bellevue Hospital. His contribution closes with an account of the rules governing the house staff, the operating surgeon, and the preparation of the operating theatre. Suppurating cases and "clean" cases are always dealt with by separate members of the staff. Dr. C. A. Norton contributes a lecture on the Neurotic Affections of the Joints, and is followed by Dr. N. Senn who discourses on various surgical affections in his clinical lecture. Finally, the section concludes with some remarks on the Opening of the Pleural Cavity without Pneumothorax by Dr. T. Tuffier. Amongst other points he insists on the patients breathing air overcharged with oxygen in order to lessen a serious risk of infection to the pleura. The insufflation of oxygen reduces the number and amplitude of the respirations, and with this it follows that the atmospheric air, always more or less laden with dust and germs, will not pass so frequently through the wound.

The section on Obstetrics and Gynæcology contains an article by Dr. E. Gallant on Disorders of the Umbilicus, which will repay perusal. Finally, after the lectures on Ophthalmology by Dr. G. Schweinitz and on Laryngology by Dr. G. Hudson-Makuen the volume closes with a summary of the progress of medicine during 1906 as regards treatment, medicine, and surgery. Amongst other points we notice that Lancereaux reports three additional cases of aortic aneurysm, illustrating the value of gelatin administered subcutaneously. He has had no accident from this treatment, although he has made about 1200 injections and he urges its efficacy not only in mild cases, but even in the most hopeless forms of perforating and thin-walled aneurysmal sac.

Encyclopædia and Dictionary of Medicine and Surgery. Vols. IV. and V. London and Edinburgh: William Green and Sons. 1907. Pp. 536.

THE fourth volume of this Encyclopædia carries the work from "Gum-resins" to "Intussusception" and contains 872 subject headings. The general scope and nature of the publication have already been explained in our reviews of the previous volumes. We may mention, however, that the first four volumes issued contain almost all the articles of the first five volumes of the "Encyclopædia Medica," together with much new material, consisting for the most part of shorter contributions, but a few longer ones have also been added. New articles on Diagnosis in Gynæcology, on the interesting subject of Heart Block, and on Recent Views on Immunity (including the Opsonic Index) have been added. Other important contributions include those on hæmatemesis, hæmaturia, heredity, hydatid disease, hysteria, and infant feeding.

The fifth volume ("Inulin" to "Lumbar Puncture") completes the first half of the work. The first article, on Invalid Feeding, is by Mrs. Chalmers Watson, M.D. The author first deals fully with the subject of the general preparation of food; next that of rectal feeding receives due attention; then prepared, predigested, and peptonised foods are discussed, as also are the foods suitable for the pyrexial state, for convalescence, and for old age. The article concludes with an account of food for diabetics and of the Salisbury diet. It will thus be seen that the whole subject of feeding is comprehensively set forth. Mr. H. E. Juler writes of the Iris and Ciliary Body. Dr. H. D. Rolleston treats of Jaundice, this symptom being classified into (1) obstructive and (2) toxæmic. A very complete article on Diseases of the Joints is furnished by Mr. H. Alexis Thomson. The subjects, however, that are dealt with most extensively in this volume are those relating to labour, the larynx, and the liver. That of labour is as full as possible; no portion of the subject seems to have been omitted. The section describing the methods of physical examination is particularly clear and is illustrated by excellent diagrams. The operations of midwifery are well described by the different writers and the description is up to date. This section concludes with the subject of Cæsarean Section and its Modifications. With regard to the Diseases of the Larynx Dr. J. M. Hunt writes concerning the examination of this organ and describes the various methods employed, such as the laryngoscopic, direct inspection, transillumination, skiagraphy, and palpation. The subject of Acute and Chronic Inflammation of the Larynx is dealt with by Dr. StClair Thomson and that of the Chronic Infective Diseases by Dr. P. McBride. Malignant Neoplasms fall to Sir Felix Semon, and the Neuroses of the Larynx to Dr. P. Watson Williams. An excellent article in this volume is that on Tropical Diseases of the Liver, by Mr. James Cantlie and the author is perhaps at his best in his description of abscess of the liver. We certainly think that his classification of suprahepatic, intrahepatic, and subhepatic abscess is the simplest and it shows well the different relations of dysentery to the above various forms. Hepatic abscess, it is well known, may be one of the easiest or one of the most difficult affections to diagnose; but anyone perusing the description of the disease in this article will find the greatest help in any difficulties with which he may meet. The remaining subjects in connexion with the liver have been intrusted to Dr. Rolleston who has dealt with them very thoroughly. For purposes of reference the work will be found most useful.

LIBRARY TABLE.

The Destruction of Daylight: a Study in the Smoke Problem. By JOHN W. GRAHAM, M.A., Principal of Dalton Hall, University of Manchester. London: George Allen. 1907. Pp. 152. Price 2*s.* 6*d.*—This is an excellent essay on the smoke problem and we have little doubt that the author, who hails from Manchester, has lived under the scourge of industrial smoke which is such a reproach to that city and the districts around it. The complete condemnation of the spoliation of air by the unchecked outpourings of factory chimneys which the author expresses needs no endorsement from us. We believe that we were the first to point out that the special clauses in the Public Health Act dealing with this nuisance were everywhere ignored. The present excellent movement against the smoke nuisance made a start some time after we had called attention in a series of articles in our columns (more than ten years ago) to the scandalous way in which manufacturers and others were allowed to discharge filthy smoke into the air. Prior to the publication of these articles nobody appeared to think of taking proceedings against offenders as they were entitled to do under the provisions of the Public Health Act. Mr. Graham seems to have overlooked our

work and does not allude to the fact that the reports of the Coal Smoke Abatement Society were first published in our columns. However, he is a fellow labourer in a good cause and we heartily welcome his excellent essay on the subject, which should help very materially towards the attainment of a great hygienic consummation.

Practical Methods of Inorganic Chemistry. By F. MOLLWO PERKIN, Ph.D. London: Archibald Constable. 1906. Pp. 155. Price 2*s.* 6*d.*—The true educational method is set forth in this little work. The student is directed in the plainest terms to prepare inorganic compounds for himself. Hitherto this practice appears to have been enjoined chiefly in regard to organic compounds, and yet there is no reason why the construction of inorganic compounds should be less interesting or instructive than that of organic compounds. Perhaps the fascination of building up a complex structure is greater. Dr. Perkin further recommends that the preparations should be carried on concurrently with the qualitative analytical course, and so the student is recommended to prepare, for example, his silver nitrate, used in illustrating the reaction of silver, by dissolving a silver coin in nitric acid. This, which may be called the step-by-step process of teaching, is, of course, best calculated to arouse the student's powers of observation and to stir within him his reasoning faculties.

Die Blutsaugenden Diptera. Leitfaden zur Allgemeinen Orienterung, mit besonderer Berücksichtigung der in den Deutschen Kolonien Lebenden Krankheitsüberträger. (*The Blood-sucking Diptera: their General Distribution, with especial regard to those which convey Infection in the German Colonies.*) By Dr. KARL GRÜNBERG. With 127 Illustrations. Jena: Gustav Fischer. 1907. Pp. 188. Price M.4.50.—The importance of the mosquito in the active transmission of tropical diseases has, thanks to the work of Professor Ronald Ross and others in this field of pathology, been now for some time fully established. New species have been discovered of the mosquito, but the correct classification of these insects has not yet been finally settled. The work of Dr. Grünberg will go far to solve the question. The volume under notice contains a very succinct account of the various genera; it is illustrated by beautiful plates, and to any reader of the German language its pages will be of great value. The characteristics of the various genera and species are detailed with minuteness, and the subject is handled in a manner revealing the great amount of labour and critical acumen that we are accustomed to note when our German *confrères* take up any subject. The author treats of the psychodidæ, the culicidæ, the chironomidæ, the simuliidæ, the tabanidæ, the muscidæ, the pupiparæ, and various other genera most comprehensively. This work is worthy to take its place as an authoritative exposition of the subject of which it treats.

Holland: Holiday Recollections and Impressions. By HENRY RUNDLE, F.R.C.S. Eng. (Reprinted from the *Medical Magazine* for July, 1907.) London: The Academical Press. 1907. Pp. 22.—This little reprint certainly sets forth the restfulness and the interest of Holland in a pleasant vein. Mr. Rundle is an intelligent traveller to whom the history of the perpetual struggle of the Dutch nation with natural forces of disintegration appeals as it must to anyone. There are a few places in the book in which emendation might be advisable; one is the statement that Dutch porcelain is well known, another is the description of the way in which the glazed Delft pottery is produced. We note Mr. Rundle claims (p. 8) that the brilliancy of the glaze is "due to the process of manufacture, the colouring being painted on the unbaked clay." How this can bring about the brilliant glaze we cannot understand. Again, on p. 11 he says concerning the well-known picture by Rembrandt, commonly called "The Night Watch": "It is so admirably hung and lighted that the hall seems to be flooded with sunshine from the canvas." We do not see how sunshine can come from a picture of which the subject is a patrol going out at night with burning lanterns and torches. We call attention to these points because Mr. Rundle's unpretending little pamphlet is in other respects well written and should be useful to intending travellers in Holland.

The Complete School Chemistry. By F. M. OLDHAM, B.A., Senior Chemistry Master at Dulwich College. Illustrated by F. C. BOOM, Assistant Master at Dulwich College. London: Methuen and Co. 1907. Pp. 416. Price 4*s.* 6*d.*—We like this book as its plan is calculated to engage the interest of the beginner quickly. Nothing appeals to the schoolboy more than experiments and therefore there is good ground for first of all collecting the experiments at the beginning of each chapter and presenting the theoretical work in a continuous form in the remainder of the chapter. The result is an excellent school course of chemistry. The ground covered provides also a course suitable for candidates for the London matriculation and army entrance examinations. The author marshals his facts in proper sequence and theory follows in a similarly systematic way. In the appendix is outlined a scheme for the analysis of a simple salt.

THE NEW VACCINATION ORDER.

A General Order on vaccination, amending the Vaccination Order, 1898, dated Sept 21st, 1907, has been issued by the Local Government Board to the board of guardians of every poor-law union in England and Wales and to all others whom it may concern. The Order runs as follows:—

Whereas by the Vaccination Order, 1898 (hereinafter referred to as "the Order"), we, the Local Government Board, made in pursuance of the Vaccination Acts, 1867 to 1898, certain rules and regulations with respect to Public Vaccination, and by Article 30 of the Order prescribed the form of the notice (hereinafter referred to as "the form of notice") to be given by the Registrar of Births in pursuance of Section 15 of the Vaccination Act, 1867;

And whereas the form of notice was modified by the Vaccination Order, 1907;

And whereas Section 2 of the Vaccination Act, 1898, which section relates to the exemption of persons from liability to penalties under Section 29 or Section 31 of the Vaccination Act, 1867, has been repealed, as from the first day of January, 1908, by Section 2 of the Vaccination Act, 1907, and it is expedient that the Order should be further modified as is hereinafter set forth:

Now therefore, in pursuance of the powers given to us by the statutes in that behalf, we hereby order and direct that, from and after the first day of October, one thousand nine hundred and seven, Article 30 of the Order, and the fifth schedule thereto, shall apply and have effect as if the form of notice, which is in that article referred to as "Form A" and which is hereinafter referred to as "Form A, Part I.," were further modified by the addition thereto of the following words and figures (hereinafter referred to as "Form A, Part II."); that is to say,—

FORM A, PART II.

To be given by the Registrar of Births (together with Form A, Part I.) to the Person to whom notice is required to be given under Section 15 of the Vaccination Act, 1867, in the case of all Children born after the 31st day of August, 1907.

On and after the first day of January, 1908, exemption from penalties under Section 29 or Section 31 of the Vaccination Act, 1867, will not be obtainable in the manner referred to in paragraph 6 of Form A, Part I., but on and after that date you will be exempt from any penalty under either of those sections for not having the child vaccinated if, within four months from the birth of the child, you make in the form set out below, or in a form to the like effect, a statutory declaration of your conscientious belief that vaccination would be prejudicial to the health of the child, and within seven days thereafter deliver the declaration, or send it by post, to the vaccination officer of the district whose name and address are given on the sheet containing Form A, Part I.

FORM OF DECLARATION.

I, , of in the parish of in the county of being the parent [*or* person having the custody] of a child named , who was born on the day of 19 , do hereby solemnly and sincerely declare that I conscientiously believe that vaccination would be prejudicial to the health of the child, and I make this solemn declaration conscientiously believing the same to be true, and by virtue of the provisions of the Statutory Declarations Act, 1835.

Dated this day of , 19 .

Signed,

Declared before me, at on the day of a Commissioner for Oaths [*or* Justice of the Peace, *or* other officer authorised to receive a statutory declaration].

Given under the Seal of Office of the Local Government Board, this Twenty-first day of September, in the year One thousand nine hundred and seven.

JOHN BURNS, *President.*

THE LANCET.

LONDON: SATURDAY, OCTOBER 5, 1907.

The Feeding of the Royal Navy.[1]

THE report of the committee (presided over by Admiral LOGIN) appointed to inquire into the question of the canteen and victualling arrangements in His Majesty's Fleet has been generally adopted by the Admiralty which by circular letters dated August 31st and Sept. 4th has authorised the proposed changes. It has been decided that the revised regulations are to come into operation on Oct. 1st, except on the China, Cape of Good Hope, Australia, East Indies, and West Coast of North America stations, where they will take effect on Jan. 1st, 1908. It is rarely that the recommendations of any Government committee have been so entirely acquiesced in by the authorities as in the present instance. The whole series of proposed changes has been accepted, without any modification, from the grave and important reduction in the meat ration to such minor matters as the altered proportions and arrangements for the jam and marmalade issues. It is evident that the work of the committee (matters of expert medical knowledge excluded) shows throughout great industry, knowledge of detail, and practical experience. Seeing also that the appointment of this committee should result in benefit to the naval service, it would, perhaps, be ungracious to ask whether such a step was mainly actuated by a desire to improve the dietary and comfort of the sailor or to endeavour to put an end to or to lessen the constant irregularities and friction engendered by the existing canteen arrangements. It seems to us unaccountable that while on the committee the permanent official, the executive, and the accountant branches were fully represented by some of their ablest officers, no member of the medical branch of the navy was invited to sit upon it. If the committee had dealt with the question of canteen arrangements only we should have made no complaint, though even then the opinion of one possessing special knowledge of the nutritive value and uses of the various supplemental articles of food might not have been devoid of practical value for purposes both of addition and elimination; but seeing that the committee has recommended serious changes in the essential dietary of the service afloat we feel it our duty to call attention to the fact that the medical department of the navy was unrepresented on a committee which rightly realised, to quote its own words, "that the Admiralty" (and we beg to add the nation at large) "are vitally concerned in the physical fitness of the men." A committee on dietary without a member of our profession seems to take us back to days before the Crimean war, or even to the times when scurvy was rampant in our fleets and had caused the failure of more than one great expedition with regard to which the country's hopes were high, though the preventive remedy for this destructive pest had been pointed out by a naval surgeon in the reign of JAMES I.

We do not propose to discuss the recommendations of the committee seriatim and we purposely refrain from any comment on the management of canteens in their disciplinary and financial aspects, only remarking that the valuable suggestions and recommendations of the committee on these points, expressed as they are with admirable terseness and lucidity, have, we are informed, excited general interest and approval. We confine ourselves to the purely medical aspect of this important question, and we may say at once that we are in entire accord with the conclusion of the committee that the supply of the staple articles of diet should devolve directly upon the Admiralty and that the function of the canteens should be limited to "the supply of the less essential articles required by the men for the sake of variety and to satisfy individual tastes." The diet of the Royal Navy obviously should be framed with a view to the development and sustenance of a high standard of muscular and cardiac work, as, from the nature of their duties, the men are liable to calls of forced labour, often under trying conditions of climate and environment. As the skeletal muscles form nearly half the body the importance of the nitrogen-containing group of foods in the nutrition of the heart and muscular system and in the development and conservation of their energies must be apparent. In the naval dietary these foods are represented by the meat, bread, and cocoa rations, the meat and cocoa containing also variable amounts of fatty foods, which possess also "important relations in the body to the production of force and heat, to body work and body temperature, and which also act as albumin-sparing foods by diminishing albuminous metabolism." We therefore are opposed to any serious curtailment of the meat ration and we cannot believe for a moment that if a medical officer had been added to the committee such a recommendation would have been unanimous. We may point out that both Dr. E. A. PARKES and Professor F. DE CHAUMONT considered that the army ration of 12 ounces of meat was insufficient and that it should be increased and that some butter or some other fat or oil should be added. We doubt very much whether in the interests of the health of the *personnel* of the navy, such an immense proportion of whom are, as a matter of fact, under 26 years of age, at a period when not only nutrition but growth of bone and muscle has to be provided for, messes should be allowed to take up any savings for their meat ration. We do not think any good meat would be likely to remain unconsumed if the suggestion of the committee was practically regarded, in which it notes its opinion "that the question of good cooking and adequate cooking appliances is in many respects the most important of all." Even on stations where the primest fresh meat is not always attainable good palatable fresh soup and similar preparations, so much used in the continental armies, would be of

[1] Report of the Committee Appointed to Inquire into the Question of the Canteen and Victualling Arrangements in His Majesty's Fleet. London: Eyre and Spottiswoode.

infinitely more dietetic value to men engaged in laborious and trying work than luxuries and condiments purchased in the canteen. During coaling ship, at the present time, there is always an immense amount of forced labour, as ships compete one against another, the work often continuing far into, or extending through, the night; no doubt this is as it should be, for quickness in any duty can be only gained by constant practical experience, and on the rapidity with which a fleet could coal and put to sea vital issues might easily depend. Taking into consideration the hard and dangerous work involved we feel inclined to amplify the suggestions of the committee and to recommend that a bread and meat or cheese ration, with a pint of stout per man, should be served out on these occasions. We do not believe that the nation would grudge any extra expense incurred. Although many of the articles sold in canteens contain but a small nutritive value as compared with the staple articles of dietary, they are by no means without their value and would repay careful observation and selection, both as regards their nature and quality. Fruits, fresh and preserved, possess both valuable antiscorbutic and anti-rheumatic properties. Condiments often excite appetite, aid digestion, act as carminatives, and afford flavour and relish. Preserved milk, butter, and cheese are the most valuable dietetic articles sold, as a rule, by the canteen. With bread they may even replace, for a few days, more staple food in cases of slight and temporary ailments depending on disturbances of the digestive system. Dr. PARKES had a very high opinion of the nutritrive value of cheese and the naval authorities might well try the issue of a ration or provide for a plentiful supply of good quality being available in all canteens. Containing double the quantity of nitrogenous substances, weight for weight, as compared with meat, it affords a nourishment at once economical, palatable, and digestible. We are glad that the committee has recommended that the present allowance of fresh vegetables should be retained; that a potato ration should be issued with salt pork; and that fresh potatoes should be carried to sea when possible. We note with interest that a system of establishing separate messes for boys has been tried with success in the Mediterranean Fleet. As at that period of life most of the organs and functions of the body are in a state of rapid evolution, exceptional diet, both as regards quantity and quality, is obviously indicated: sufficient nitrogenous elements for tissue development, carbohydrates for heat and muscular energy, and, what is often now forgotten, a plentiful supply of substances containing mineral salts, especially of lime, to complete the growth of the osseous framework. We hope that it may be found convenient in the future to extend this system of separate dietary for boys throughout the whole service. The changes and improvements suggested as to the bread and biscuit ration will be for the benefit of the men and will find a general appreciation.

With regard to the suggestions for the future development of victualling arrangements and treating the whole ship's company as a general mess we feel on very debateable ground. We believe that a general messman for officers, including captain, ward-room, gun-room, and formerly engineer officers, in the past rarely, if ever, proved satisfactory; at any rate, it would admittedly require "a highly trained staff, up-to-date cooking appliances, extensive cool-room accommodation, and a free hand to the victualling officer." Such a system could be clearly only applicable to large ships and would, as the committee seems wisely to foresee, "deprive the bluejacket of all right of individual choice outside the bill of fare and the ability to spend his messing allowance on what he fancies most." Taking into consideration the large number of small craft, torpedo boats, and destroyers in commission, in all of which such a system would be absolutely impracticable, it would seem undesirable to impair the self-reliance and independence of the men in these details which have made the naval and marine services so efficient in active service, even when landed and far away from their basis of supplies. It would be an impossible task to form a perfect dietary and to establish perfect canteen arrangements for a body of over 100,000 men of different ages, performing different duties, and serving under varying conditions in every climate of the world. No scheme will ever satisfy everyone but we are inclined to believe that the improvements in the cooking of the men's food which are alluded to by the committee "as being at present carried into effect" will be of immense advantage and will be productive of permanent satisfaction, while we are glad that its recommendations as to the greater variety of provisions desirable in small ships and torpedo craft in which a canteen is impossible are not to be lost sight of. The whole subject is so important to the health, efficiency, and contentment of the service afloat that we wonder the Admiralty does not appoint a small permanent committee to receive reports from commanding and medical officers and to consider suggestions with regard to modifications of diet under exceptional conditions of climate and service.

Medical Ethics.[1]

DR. ROBERT SAUNDBY'S professional and official positions necessitate that we should speak with all proper consideration and respect for his work, whether scientific, educational, or medico-political, and it is with regret that we find ourselves unable to agree with him entirely on matters of considerable professional importance. He has lately published, for the instruction of the medical profession, and for the instruction also, we presume, of the public which has dealings with its members, a volume bearing the title of "Medical Ethics," a title which appears to us to be a misnomer. We understand by "ethics" the general doctrine of the duties of life and the prefix "medical" would seem to have a limiting effect, and to imply the consideration and formulating of such duties only as might arise from, and be peculiar to, the relations between the medical profession and the persons about whom they are required to exercise their skill or to deliver their opinions. Dr. SAUNDBY'S book goes a long way beyond this definition and is a treatise on the expediencies of medical practice rather than one on "ethics" of any sort in the proper sense of the word. There is certainly nothing of special application to medicine in the announcement that only true statements should be embodied in certificates, that agreements deliberately entered into

[1] Medical Ethics, by R. Saundby, M.D. Edin., second edition, London, Charles Griffin and Co., 1907, price 7s. 6d.

should be observed, and that the forms of courtesy should be maintained. The profession is told, among other things, that "if calls are habitually not returned, letters left unanswered, or messages are sent by ignorant people" all sorts of direful consequences may naturally be expected to occur. If any copies of Dr. SAUNDBY'S book should be in existence when MACAULAY'S (or HORACE WALPOLE'S) New Zealander pays his visit to London Bridge we fear the oft-quoted traveller (and we apologise for introducing him) would be led to form, from the apparent necessity of such injunctions as the above, an erroneous and far from complimentary conception of the ordinary state of morals and manners among the members of the medical profession in England during the reign of his gracious Majesty King EDWARD VII. We consider it to be a just complaint that this book lays stress upon the importance of observing ordinary honesty and truthfulness, as if medical men were under some special temptation or liability to neglect these elementary and universal requirements, and we may complain not less reasonably of the introduction of many trivialities, the applicability of which would largely depend upon the circumstances of particular cases. On most of the minute points which present difficulty in medical practice Dr. SAUNDBY has something to say and if he can give his readers no real guidance he can hardly be blamed, for as often as not only vague generalities can be used in framing a code of manners or procedure which would be likely to have any degree of applicability to the actual circumstances of a multitude of particular cases.

The truth is, we think, that the members of the medical profession do not any longer require the guidance which it has been Dr. SAUNDBY'S object to extend to them; and that solutions of the difficulties which from time to time are encountered in actual practice must be sought in the application of judgment and moral sense to the consideration of the varying circumstances as they occur. A medical man who respects himself, and at the same time has due consideration for others, who is not anxious hastily to condemn conduct the motives of which he may not fully understand, who weighs his words before using them, and makes certain of the facts before proceeding to the formation of conclusions, is not likely, we think, to find any of the difficulties of practice irremoveable, or any of its duties impossible of fulfilment. If the essential conditions of sound judgment and of right conduct are wanting, we do not think that any book of regulations is likely to be of great practical value in an emergency. We fear, indeed, that Dr. SAUNDBY has lent himself unwittingly to an idea that some more disciplinary control should be exerted over the profession generally, and this is not a view with which we are in accord. The General Medical Council has certain powers to punish offenders, and the disciplinary work done is undoubtedly hampered by the indefiniteness of some of the offences and the rigid code of punishment. But we see no signs of need for further control. Medical men are called upon to exercise too wide a discretion in the course of their daily dealings with the world to render it reasonable to expect them as a body to submit to tutelage; and nothing could be more disastrous to their prestige than the existence of a belief that they speak and act under the guidance of some professional or irresponsible tribunal. Such a condition of subordination is natural enough in the case of a trade union, and may even be necessary in order to allow its executive to wield the force of numbers; but it is wholly unsuited to the conditions of a profession composed of men fully competent to exercise their own judgment, and in no way needing the guidance of others. We urge upon the younger members of our calling the propriety of thinking for themselves in relation to any difficult positions in which they may be placed, and of guiding their action by the simple rules of truthfulness and plain dealing.

Dr. SAUNDBY'S book is an extension of a smaller work which was published some five years ago, since which time the author has delivered two courses of lectures at the University of Birmingham, the material of which we understand has been incorporated in the volume before us. As lectures to medical students the work can be regarded from a different standpoint. The medical student, deprived of the professional introduction which stood him in such excellent stead in the old days of apprenticeship, often requires elementary instruction in professional procedure. We have regretted before now in these columns that, as a rule, he does not get it, and we recognise that in Dr. SAUNDBY'S book he would find much valuable instruction. He would be introduced to the difficulty of situations in which he may afterwards find himself, and would not be taken by surprise when professional circumstances suddenly arrange a dilemma for him out of which he can only escape by some possible loss of money or certain loss of self-esteem. The student reading this book or having its contents expounded to him in the course of lectures will be receiving useful lessons; but when a particular difficulty turns up in actual practice he must be warned that no book can be expected to give him a definite answer. There is not a rule that has ever been made concerning such subjects as the size of door-plates, the character of medical evidence, and the attendance upon the families of medical men—to select three points at random—that could not be violated in a thoroughly professional manner owing to some modification of circumstances, and we regard it as a dangerous idea that some concrete code, to act as a guide to medical men, can be drawn up. Dr. SAUNDBY has written an interesting book, one which students should read and one which practitioners may also study with advantage; but practitioners will remember that the whole of so-called medical ethics is covered by the edict, approved equally by the Law and the Prophets and Buddhistic authority, that a man should do as he would be done by.

The Introductory Addresses.

THE time-honoured custom which decrees the delivery of an introductory address at the opening of the winter session at many of the medical schools is one which serves a useful purpose, even though it is, perhaps, not the original purpose for which the lectures were instituted, for it affords an opportunity of discussing more or less officially some of the problems in connexion with the questions of medical education and practice. The original function of an introductory address was doubtless to extend an official welcome to the new students and perhaps to give good advice; of late,

however, the tendency has been rather to adapt them to a wider audience, since the lecturer usually has before him not only medical students but also their relatives and friends. Moreover, the lay press is usually represented on these occasions, as a result of which the lectures, or at any rate an abstract of them, may be very widely read. There are many questions in connexion with medical matters upon which the general public have but little knowledge and upon which it is desirable that they should be informed from an authoritative source. In no matter is this more important than in relation to the long and exacting curriculum necessary for qualification in medicine. The extraordinary progress which has recently been made in the various medical sciences has of necessity resulted in most profound changes, not only in regard to the educational course of the student which must assimilate the various advances as they are firmly established, but also in regard to the actual routine and work of the practitioner and to the status of the profession as a whole. The fact that the present is a period of transition was emphasised by at least two of the lecturers this October—by Sir RICHARD DOUGLAS POWELL in his introductory address at University College in regard to the question of medical education and by Dr. WILLIAM EWART at St. George's Hospital in connexion with the work, status, and emoluments of the practitioner.

Sir RICHARD DOUGLAS POWELL, in referring to the new buildings at University College, alluded to the ever-changing requirements of advancing science and the altered and increased accommodation which they demanded. He also emphasised the importance of the new departure made at both University and King's Colleges—viz., the separation of the second or more strictly medical portion of the student's curriculum, comprising pathology, bacteriology, medicine, surgery, gynæcology, and therapeutics, from the first or earlier subjects of anatomy, physiology, chemistry, physics, biology, and materia medica, the former being taught in connexion with the hospitals, and the latter with the collegiate portions of the institutions. While recognising the almost inevitable character of this separation, which he believed would extend to other institutions, and although of opinion that the change would be beneficial, he was careful to point out some of the possible drawbacks and to sound some notes of warning. Among these we may specially mention the possibility that the instruction in the earlier subjects may become purely academic instead of utilitarian if taught by professors with no medical knowledge and with no special sympathy with the aims of medicine. Sir RICHARD DOUGLAS POWELL strongly urged the student to guard against alienation from the application of his teaching to the needs of suffering humanity, but in this connexion the authorities arranging the student's curriculum have a responsibility and the lecturer's warning is one not to be forgotten. Another point which he also urged was that only two years could be spared from the five years of the curriculum for the earlier subjects, except for those students taking degrees or working for the higher qualifications, much of the work for which he contended should be post-graduate. He welcomed the substitution of working demonstrational courses for the abstract lectures of past days, but he strongly advised the student to retain his independence of mind and to verify everything so far as possible rather than to rely upon tutorial instruction. He concluded his thoughtful address with some carefully weighed suggestions. He is strongly of opinion that work for the higher degrees should be post-graduate, as already mentioned. He thinks that special hospitals and infirmaries might be more utilised than they are at present, and he quoted a suggestion of an authority on the General Medical Council that there might be a limitation of the number of students at the hospitals proportionate to the number of beds available for clinical teaching. The address, as a whole, affords an interesting illustration of the difficulties which have to be faced in the adaptation of the curriculum, both from the points of view of the student and his teachers, if the instruction is to be up-to-date, practical, and effective.

Dr. EWART'S address at St. George's Hospital on "'Res Medica, Res Publica': the Profession of Medicine, its Future Work and Wage," gave a very carefully planned and worked-out analysis of the changes in the science and practice of medicine as they affect the practitioner. He is of opinion that our profession is in the throes of a double crisis, an economical one resulting from the success attending the efforts of preventive medicine in reducing the prevalence of disease and thus contracting the fields of practice, and a professional one represented by the increase of specialism which he contended makes for disruption in the profession in place of that cohesion which is essential if it is to attain its proper recognition. Dr. EWART very cogently pointed out the remarkable conditions under which medical research is carried out in the interests of the community at large to increase the knowledge of disease and the means of preventing it, i.e., very largely at the expense of that profession whose field of remuneration is restricted by its own advances. He contended that the practice of medicine, especially as a general practitioner, leads neither to honour nor to a compensation compatible with the dignity of the profession, and he enumerated the various causes that have contributed to produce the crisis which he described. He then discussed the relation of the profession to the State and pointed out that since the care of the health of the people is the primary duty of the State the profession of medicine is one of the highest sociological and economic importance and that its educational, advisory, political, and other functions are of such value that they should receive State organisation and subvention. Dr. EWART rightly claimed that our profession gives a vast contribution to the State in the shape of unrequited or ill-requited service, especially in the poorer districts, where the medical man is practically the "nation's almoner." He said: "If anything could be more pathetic than the rags of the Apothecary in *Romeo and Juliet* it is that quiet devotion of the surgeon of twentieth century attainments as he toils under his heavy burden either totally unpaid or at a wage which is not presentable." Dr. EWART proposed certain remedies for the conditions which he portrayed so vividly; among them are the establishment of a Ministry of Public Health and the assumption by the State of its responsibilities in regard to all medical matters. In regard to the profession itself he suggested a uniform State professional qualification, a restriction of the number entering the profession, and concentration of the forces of medical

practitioners to ameliorate their conditions. Dr. EWART'S address was somewhat of the nature of a jeremiad, but it cannot be denied that he dealt with real hardships and that many of the facts which he brought forward are unknown to the public generally, who have, as a whole, an exaggerated idea of the emoluments of the practitioner. It has recently been estimated that the average income of the British practitioner is from £200 to £250 a year, which it must be admitted is a very inadequate return for the years of study and the expenses of the curriculum. Dr. EWART'S address affords much material for thought and some of the reforms which he propounds are devoutly to be desired.

Annotations.

"Ne quid nimis."

MALTA AND MEDITERRANEAN FEVER.

THE report prepared by Mr. E. M. Merewether, C.V.O., C.M.G., Lieutenant-Governor and Chief Secretary, in anticipation of the publication of the Malta blue-book for the year 1906–07 states that the births in 1906–07 numbered 7633, as against 8126 in 1905–06. The deaths in 1906–07 numbered 5552, as against 5489 in 1905–06. The health of the people during the past year was satisfactory. As to the general condition, it is pointed out that the reductions in the fleet and garrison have caused considerable loss to shopkeepers, boatmen, cab-drivers, and other classes. Every year the births exceed the deaths by over 2000 and unless an outlet is found for the surplus population the situation will in a few years' time become acute. The number of cases of Mediterranean fever reported in 1906–07 was 883, with 80 deaths, as against 1606 cases, with 138 deaths, in 1905–06. While the total decrease in the number of cases reported was 723 the decrease in the number among the civil population was only 108, or about 15 per cent. of the total decrease, the remainder of the decrease (85 per cent.) occurring in the naval and military population. These figures furnish the clearest proof, if proof were needed, that goat's milk is the principal agent in spreading Mediterranean fever. The use of goat's milk has been absolutely prohibited by the naval and military authorities with the result indicated above. The civil population, in spite of the warnings of the Government conveyed to them by means of leaflets printed in the vernacular, continue to use goat's milk without even taking the precaution of boiling it. This is, in the main, due to ignorance and a tenacious adherence to old ideas and beliefs, but it is surprising to find educated people wilfully shutting their eyes to a fact that has been so clearly demonstrated. The Mediterranean Fever Commissioners have now concluded their investigations. The results have been summed up by Colonel D. Bruce, C.B., F.R.S., R.A.M.C., in a short pamphlet in which, after briefly referring to the experiments conducted with a view to ascertain how the micro-organism enters the human body, he states that the most probable way is "by the alimentary canal, and, therefore, by some infected food or drink." The discovery that 10 per cent. of the goats in Malta were actually excreting the micrococcus in their milk threw a flood of light at once on the subject. To quote Colonel Bruce's own words: "Here, then, at last has been discovered a mode of infection which explains many of the curious features in the epidemiology of Malta fever—the irregular seasonal prevalence, the number of cases which occur during the winter months, when there are no mosquitoes and little dust. It is true there are more cases in summer, and this may be explained by the temperature being more favourable to the multiplication of the micrococcus in milk that has been set aside, and to the fact that more milk and cream are used for fruit, in ice-creams, &c. It explains the liability of the officer to attack being three times as great as in the case of the private soldier, since the former consumes much more milk in various ways than the latter. It also explains the isolated epidemics which sometimes occur at any season of the year in institutions or in messes."

PROPRIETARY MEDICINES.

IN the letter from our Australian correspondent which appears in another column will be found a note upon the Royal Commission lately held by the Commonwealth Government to inquire into the question of patent medicines. The Commissioner makes various recommendations, amongst others: (1) that every patent medicine when issued for retail trade should be accompanied by the formula of preparation; (2) that no advertisement of any proprietary or secret cure should be permitted in any publication; and (3) that the transmission through the post of literature concerning such medicine should be prohibited. We consider that these recommendations are altogether admirable and earnestly hope that they will be acted upon. The trade in patent and proprietary medicines should be rigorously prohibited and the way in which the daily press and the popular monthly journals exploit proprietary medicines of every kind which purport to cure every ill or disease under the sun is a simple disgrace. The scathing exposure given to "Bile Beans" in a recent trial shows very well the nature of the statements which the proprietors of these nostrums send to the press for publication and which the press is only too willing to publish—of course, for a consideration. The evil which is done to the health of the body politic by these preparations is incalculable and although we regret to see that our correspondent considers that the Commonwealth Government will not introduce any new legislation founded on the report we nevertheless earnestly hope that it will do so. In the meantime we are anxiously waiting for legislation on the question to be brought forward in this country. The amount brought in by the patent medicine stamp duty is comparatively small and the saving to the nation both in health and in pocket which would follow upon a prohibition of the advertisement and sale of quack medicines would be worth many times the sum brought in by the taxation upon these articles which is at present collected.

FLIES AS CARRIERS OF DISEASE, AND A WORD ABOUT PRIORITY.

IN a recent leading article,[1] in which we discussed the potentialities of flies as carriers of disease, we made references to the nuisance caused by these insects in hot climates and to the greater opportunities for evil which they there possessed. The significance of these facts, which have been known to the world since the world began, is this, that it is clearly of importance to ascertain as definitely as possible the habits of flies and the soil in which they breed, in order that we may be able to take suitable measures for diminishing their numbers, just as it was essential to locate the breeding-places of the mosquito with a view to prevent the spread of malaria. Some recent observations of Major F. Smith, D.S.O., R.A.M.C., published in the August number of the *Journal of the Royal Army Medical Corps*, are valuable as throwing light on the subject. He found that in India fæcal matter, both of man and of animals, afforded a breeding-ground for flies, in spite of the rapidity with

[1] THE LANCET, Sept. 14th, 1907, p. 779.

which such material dries up in the tropical sun. The maggots produced seemed to find their way into the ground beneath the fæcal deposit and to emerge thence as flies after about a fortnight's interval. Little care seems to be exercised in India as to the disposal of fæcal matter on account of the prevalent view that the sun's heat rapidly renders it innocuous. Major Smith's observations supply at least one reason for greater scrupulosity in this respect, while there can be little doubt that germs of disease may be present in fæces even when no illness is suspected and that the flies which resort to the excrement for breeding purposes will also be capable of carrying the infection to food or other materials on which they may subsequently settle. It may be added that, as a consequence of the leading article to which we have referred above, we have received a singular letter from a member of the medical profession who quite seriously asks us why in that article certain names were mentioned and not his own, seeing that ten years ago he had in a book "clearly and positively asserted that flies do carry infection by organisms, especially to milk and therefore to all food." We did not pretend to give a list in our article of all the medical men who had ever printed the idea that flies might act as carriers of disease. Nor do we understand any of the three medical men, whose names we gave, as setting up a patent in the notion. The value of the observations of Dr. H. H. Tooth, Dr. A. B. Dunne, and Dr. R. M. Buchanan lies in the fact that they have not "clearly and positively asserted" any universally recognised generalities but have studied the matter with the view of proving experimentally in particular directions what was so far only a matter of common surmise. Claims of priority ought to be very carefully made, and in particular we view with distrust the attempt to cover future developments in medicine by preliminary announcements of some far-reaching kind. In 1897 our correspondent stated that flies carried infection; we throw no doubt on the statement, but the fact does not give him any title to share the credit with Dr. Buchanan of elaborate researches proving how certain bacilli in certain circumstances are actually conveyed by flies to certain artificial media and with what result. Dr. Buchanan's paper was a detailed account of a difficult piece of scientific investigation, and our correspondent's general statement ought not to have seemed to him to compare in any way with it.

THE SCHOOL INCIDENCE OF TUBERCULOSIS IN THE UNITED STATES.

AT the meeting of the Sociological Section of the American National Association for the Study and Prevention of Tuberculosis, held this summer in Washington, among other phases of the tuberculosis problem discussed was that of tuberculosis in schools. The influence of school life upon the incidence of tuberculosis is a matter which has not seriously occupied the attention of the medical profession on the west of the Atlantic until a comparatively recent date, but from the account of the proceedings at Washington, published in a recent issue of the *Medical Record*, it is clear that the Americans intend for the future to take the problems presented by school hygiene in connexion with tuberculosis very seriously. Dr. John Lowman (Cleveland) read a valuable paper at the meeting in which he said that he was of the opinion that in order to control tuberculosis during the school age it was necessary: (1) to discover through the records of the municipality and public institutions the children who were infected and those who lived in infected houses; (2) to examine and to classify the individuals thus found and place the contagious cases in sanatoriums and the others in separate schools; (3) to develop the hygienic surroundings of these separate schools to the highest plane of excellence; (4) to discriminate between these children and their healthy comrades, even during the vacations, by referring them to the special consideration of "outing societies"; (5) to obtain medical men who would at stated intervals examine the children and report to the supervisors the conditions found; (6) to use the utmost precautions for the protection of the teachers; (7) to introduce systematic courses on hygiene and tuberculosis into the curriculum of the schools; and (8) to provide sanatoriums for the children. This, of course, is a most comprehensive programme and no one expects that it will all be carried out at once. Dr. S. A. Knopp made the suggestion that the teacher should be instructed in the signs of early tuberculosis. The average school teacher, he said, was intelligent and could be taught the objective symptoms of tuberculosis, especially those of early tuberculosis or of the pretuberculous stage. With teachers so trained and with periodical examinations by skilled diagnosticians, he firmly believes that we would strike at the root of this evil. The assumption that early tuberculosis is easy to diagnose will hardly pass unchallenged. At the Congress on School Hygiene held in London at the beginning of August Dr. T. J. Macnamara[1] dwelt upon the incidence of pulmonary tuberculosis on school teachers in a significant manner, and it is now commonly accepted that instruction of the teachers in the elementary laws of hygiene would be of benefit both to teacher and to pupil. In England, not without persistent effort on the part of enlightened people, medical inspection of the pupils at elementary schools has become the law, and it seems probable that like effort will succeed in making compulsory the teaching of the elements of hygiene in schools. We are, of course, a long way from Dr. Lowman's very inclusive proposals for dealing with one disease only, but we fear that it may be some time before the tuberculous children in America receive the intelligent attention which he advocates.

THE CRICHTON ROYAL INSTITUTION, DUMFRIES: RESIGNATION OF DR. J. RUTHERFORD.

THE public estimation of an asylum for the insane depends in a great measure on the professional and administrative capacity of the medical man who presides over it, and this feeling will no doubt contribute to the regret felt for the resignation of Dr. James Rutherford of the Crichton Royal Institution at Dumfries. Dr. Rutherford was born at Falkirk in 1840 and received his medical training at the University of Edinburgh, where he graduated as M.D. in 1863. He then spent a year on the Continent, studying medicine in Berlin and Vienna. On his return to this country he and Dr. Lockhart Robertson jointly made a translation of Griesinger's "Manual of Mental Diseases," which was published by the new Sydenham Society in 1867. In 1866 he became a Fellow of the Royal College of Physicians of Edinburgh with a view to practising in that city, but in 1867, as a result of his translation of Griesinger's work, he was offered, and accepted, the post of assistant to Mr. Green of the Birmingham Asylum. In 1870 he was appointed medical superintendent of the Argyle and Bute Asylum. Four years afterwards he obtained the superintendentship of Woodilee Asylum at Lenzie in Lanarkshire. Here he made a high reputation as an asylum physician and a good administrator. He carried out many reforms in the treatment of the insane in the direction of more full employment and greater freedom of his patients. With a view to this the asylum grounds were extended to over 500 acres. There were no airing courts and no locked doors. These reforms attracted much attention, both in this country and on the Continent. He received many honours from foreign countries, having been elected an honorary

[1] THE LANCET, August 17th, 1907, p. 462.

member of the French Psychological Society and of the American Medico-Psychological Association. In 1883 he was appointed as superintendent of the Crichton Royal Institution, and he has extended its bounds and advanced its reputation in many ways. The handsome church erected at a cost of over £30,000 in memory of the founder, and opened in Queen Victoria's Jubilee year, owes its inception and carrying out to his energy. In consequence of failing health he now leaves the institution at the summit of its prosperity. As an indication of the high appreciation of Dr. Rutherford's services, it may be mentioned that he has been granted a pension of £1600 a year, which is the maximum amount.

ŒDEMA "A FRIGORE."

THE very different effects which such an ordinary condition as exposure to cold may produce on the skin are interesting and in need of elucidation. The commonest effect is the well-known blue appearance of such exposed parts as the hands and face. This might be described as the physiological reaction. But in some persons not blueness but pallor is produced, as in the condition known as "dead fingers." A more severe and more elaborate reaction is that known as Raynaud's phenomenon which occurs in the most distal parts, such as the hands, feet, or nose. The affected part first becomes pale (local syncope) and then becomes blue (local asphyxia), and in some cases the interference with the circulation is so great as to be followed by gangrene. Another well-known effect is the common chilblain. Among very rare effects are local œdema and urticaria. In the *Gazette Hebdomadaire des Sciences Médicales de Bordeaux* of Sept. 8th M. Muselli has reported the case of a man, aged 30 years. When any part of his body was exposed to cold rain or mist or to a current of cold water that part became after some minutes the seat of hard painless œdema which lasted several hours and then disappeared. Sometimes the nose, sometimes the chin, and sometimes the cheek was affected, giving the patient a strange and even comic physiognomy. When making his toilette in the morning if by chance the cold and wet towel fell upon any part of the chest or abdomen œdema appeared there. But the parts most often affected were the hands and forearms, in consequence of their exposure during the patient's work in wet and cold. While the œdema lasted he could not use the affected limbs. There was no history of the malady in his family and it began at the age of 20 years, the patient not having suffered previously from any serious disease. When he plunged his hands in ice water they swelled up in some minutes and the fingers became as big as "puddings" (*boudins*). The heart and other organs were normal. The urine did not contain sugar or albumin. M. Muselli is unable to suggest any explanation of this curious malady. We cannot refer to any quite similar case but may mention some rare cases in which exposure to cold produced urticarial wheals—lesions which are a form of localised œdema. Sir Stephen Mackenzie described the case of a child, aged four and a half years, the subject of paroxysmal hæmoglobinuria, who under the influence of cold was attacked with shivering generally accompanied by an eruption of large patches of urticuria.[1] In an annotation[2] we described the case of a man, aged 33 years, presented to the Société Médicale des Hôpitaux of Paris by M. Lucien Roques. He was in good health but for three years had suffered from paroxysmal hæmoglobinuria. The attacks were always produced by exposure to cold to which he was extremely susceptible. A momentary draught or merely getting out of bed would produce one. Occasionally the parts of the body exposed became swollen. Further, there was a very peculiar phenomenon which does not appear to have been described by any other writer. If a portion of the skin was exposed to cold for a short time, for example by the application of ice or a metallic body, a pruriginous urticarial wheal surrounded by a rosy band appeared in two or three minutes. It attained a maximum in ten or 15 minutes, leaving a yellow patch of œdema which lasted for two hours. When the œdema passed away there still remained a yellowish tint which lasted for 24 hours. This might be regarded as a form of dermographia but apart from the effect of cold dermographia could not be produced. Moreover, M. Roques could not produce the condition in a number of subjects of nervous disease or of dermographia. The yellow colouration of the wheals was evidently due to local transudation of hæmoglobin. This case, as we pointed out, supports the view that paroxysmal hæmoglobinuria is due to the setting free of hæmoglobin in the blood-vessels—a direct effect, no doubt, of cold on the red corpuscles. Thus the hæmoglobinuria was due to special susceptibility of the red corpuscles to cold and the urticaria to special susceptibility of the vasomotor system to cold. These susceptibilities appear to be independent and rarely to be combined as in the two cases quoted.

[1] THE LANCET, July 26th, p. 116, and August 2nd, p. 155, 1879.
[2] THE LANCET, June 18th, 1898, p. 1704.

THE MEDICAL SOCIETY OF LONDON.

THE 135th session will be opened on Monday, Oct. 14th, when Dr. J. Kingston Fowler, the new President, will deliver his introductory address. A very good programme has been arranged for the session and papers will be read by Dr. J. Rose Bradford, Mr. J. D. Malcolm, Mr. Edmund Owen, Colonel D. Bruce, R.A.M.C., Mr. C. B. Lockwood, Dr. W. H. Willcox, Dr. C. Bolton, Mr. D'Arcy Power, and others. Discussions as follows have been arranged: on Pneumococcus Infections, to be introduced by Professor W. Osler; on the Prognosis and Treatment of Acute Anterior Poliomyelitis, to be introduced by Dr. J. S. Risien Russell; and on the Diagnosis and Treatment of Fractures of the Long Bones, introduced by Mr. A. Pearce Gould. The Lettsomian lectures will be delivered on Feb. 3rd, 17th, and March 2nd, 1908, by Mr. Charters James Symonds, F.R.C.S. Eng. The subject of the first two lectures is Tuberculosis of the Kidney, and that of the third, Malignant Disease of the Cæcum. The annual oration will be delivered by Mr. Clinton T. Dent. The anniversary dinner will be held at the Whitehall Rooms, Hôtel Métropole, on March 11th, at 7.30 P.M.

THE LINE OF PERSONAL UNCLEANLINESS.

SCARCITY of water is usually supposed to account for personal uncleanliness. Yet the unwashen are often well supplied with water. Ouida, from whom we do not expect to derive theories of social science, has maintained in one of her essays that the unwashen condition of the poor of Latin race is of mediæval origin and ecclesiastical tradition. She seeks to show that the poor of classical antiquity cannot have been squalid owing to the existence of public baths, such as those of Caracalla in Rome which must have accommodated some 1700 bathers at one and the same time. We have no means of knowing whether the baths of Caracalla were ever full of bathers. They certainly fell into ruin at an early date. According to Ouida the poor were clean until the friar preachers taught them to despise the care of the body, of which ablutions are the chief safeguard. There is, however, a lower depth than lack of washing to which whole races as well as classes can and do sink. It would seem, indeed, as though a time came in the history of a sinking or dwindling race when self-respect and a standard of personal decency were forgotten and when this

oblivion was marked by the tacit adoption of pediculous conditions of hair, clothes, and living rooms. Travellers think shame to speak evil of their hosts, especially when well beyond their range. Accordingly little is said of certain pediculous townships. But there can be no doubt that these places come to be shunned and passed by because of their insect inhabitants. We may well imagine, indeed, that in the course of the centuries whole districts have come to be isolated for this reason and that their inhabitants have become in an especial degree the victims of disease, famine, and decivilisation. The line of mere dirt may be said to divide the prosperous and enlightened from the wretched in some sunny climes; in others, where rivers and rains are abundant, the line of vermin is drawn sharply between a well-fed, well-washed, healthy race and some unhappy tribal remnant that has fallen into self-neglect. Linnæus observed that the Lapps were verminous.

THE GOVERNMENT OF INDIA AND MEDICAL FEES.

THE following notification of the Government of India, dated July 1st, 1907, has been made public:—

In supersession of the notifications of this Department No. 437, dated July 25th, 1893, No. 1930, dated Oct. 8th, 1900, No. 852, dated June 12th, 1901, and No. 395, dated April 26th, 1904, and of all existing orders on the subject, the Governor-General in Council is pleased to make the following rule regarding the receipt by medical officers of Government of fees for professional services rendered to ruling chiefs and their families or dependents, Indian gentlemen of high position in a native State, or Indian gentlemen of high position in British India. 2. A medical officer of Government, before demanding or accepting from any Indian gentlemen of the status defined above any fee for professional services rendered, shall obtain by a confidential application made through the local administrative medical officer the permission of the Director-General, Indian Medical Service. Such permission will not be required in the case of fees calculated on the scale of Rs.16 a visit, or in certain cases Rs.32 according to recognised custom, unless the total amount thus paid for attendance on a patient or his family during any one month exceeds Rs.160.

Commenting on this new regulation our contemporary the *Indian Medical Gazette* says: "We could well wish that such a notification had never been considered necessary, and we would infinitely prefer the matter of fees to be left entirely as a matter of private arrangement between doctors and patients, in the same way as between lawyer and client, but if such an arrangement as has been in force for the past seven years is necessary we are of opinion that the regulation in the form now published is in every way preferable. The matter of fees will now be left to the discretion of the sympathetic head of the Medical Department rather than communicated through lay channels, a method in many obvious ways objectionable. Medical men in the service of the Government of India should be grateful to the Director-General for having effected this change, and we hope the time is not far distant when any such order or regulation will be entirely abrogated, and all such arrangements left to the good feeling of both the parties concerned." We are sorry we cannot entirely agree with our contemporary that the new regulation is in every way preferable to its predecessor. Formerly the inquisitorial ordinance was binding solely upon medical men serving in native states under the political department, whereas now it has been made applicable to all civil and military surgeons on duty throughout British India. Doubtless the substitution of a medical for a lay judge who, as the former ordinance had it, shall "appraise the value of the services rendered and the extent of the relief afforded" is, to a certain extent, an amelioration, but even so the amended regulation continues to be fatal to the maintenance of professional secrecy. The confidential relations between medical men and their patients should be sacred, but under the ruling of the Government of India the most intimate particulars have to be laid bare. If the head of the Medical Department were alone concerned the difficulty might perhaps be met by regarding him as a consultant, but under the prescribed conditions secrecy is placed at the mercy of a number of subordinates and must necessarily cease to exist. The right of private practice has always been conceded to Government medical officers in India. It is on the faith of this understanding that they enter the service, and a high-handed interference with their liberty of action in this respect is not only a breach of morality but probably also illegal. Government lawyers in India have a free hand in the matter of fees. In their case there is no regulation fixing the sums which they are permitted to demand. It is no less than an insult to an honourable profession to treat medical men as if they were potential extortioners—to provide for the vagaries of an improbable black sheep by fettering the entire flock. The *raison d'être* of the objectionable ordinance has been ascribed to jealousy, to angry resentment on the part of a small but powerful clique, but we cannot for a moment suppose that such an unworthy motive could ever influence English gentlemen. The desire to protect the innocent native is probably the real motive, but if so its foundation is not very stable. Indian gentlemen of position are remarkably well able to protect themselves from imposition and no doubt many of them will resent this interference with their right to exhibit gratitude for services rendered.

EGYPTIAN VITAL STATISTICS.

THE Egyptian Department of Public Health has issued a folio volume of statistics dealing with the births and deaths in the principal towns of Egypt during the six years from 1901 to 1906. The towns dealt with are 20 in number, and on July 21st, 1906, they contained an aggregate of 1,586,010 inhabitants, or about one-seventh of the total population of the country not including foreigners or Bedouins. In 1901 the aggregate population of the 20 towns was 1,350,693, so during the sexennial period the number of inhabitants has increased at the rate of about 12·4 per cent. Similar statistics referring to the foreigners who are domiciled in these towns to the number of 104,051 (calculated up to June 1st, 1897) are supplied in a separate set of tables. The average birth-rate for Egyptians during the six years was 43·3 per 1000; the average death-rate was 34·7 per 1000. Out of a total mortality during the period of 297,669, the deaths under two years of age amounted to 153,155, or 51·4 per cent. When to the latter the deaths from two to ten years are added the percentage rises to 64·8. The fatal affections are classified under 18 heads. Dysentery and diarrhœa caused 68,040 deaths; congenital and senile debility (*sic*), 55,147; tuberculosis, 16,295; measles, 7792; other infectious diseases, 29,675; and violence, 6930. Among the foreigners the average death-rate for the six years was 21·6 per 1000, but the birth-rate cannot be given because under the capitulations there is no compulsory notification of births for non-Egyptians. The foreign deaths under two years of age were at the rate of 28·6 per cent. of the total number; under ten years of age they were at the rate of 35·5 per cent. The most fatal affections among foreigners were dysentery and diarrhœa, 2174; tuberculosis, 1248; congenital and senile debility, 1078; typhoid fever, 484; diphtheria, 258; cholera, 241; small-pox, 213; plague, 65; other infectious diseases, 581; and violence, 448. The total number of deaths from all causes during the six years was 13,511. In a detached leaflet some additional vital statistics are given for the years 1905 and 1906. From it we learn that the native population of Egypt increased from 10,598,085 in 1905 to 10,814,568 in 1906, the increment being therefore at the rate of a little more than 2 per cent. The native birth-rate for the whole country was 43·0 per 1000 in 1905 and 44·4 per 1000 in 1906. The death-rate in the former year was 24·6 per 1000 and in the latter 24·1 per

1000. The state of vaccination in Egypt is shown in the subjoined table :—

Year.	Births.	Vaccinations.		Revaccinations.	
		With success.	Without success.	With success.	Without success.
1905	455,595	426,557	1517	2752	804
1906	480,307	435,403	1465	2392	320

According to the census of 1897 the number of Bedouins distributed throughout Egypt was 602,139, the largest contingents being located at that time in the provinces of Behera (103,626), Sharkia (91,633), and the Fayoum (60,555). It is impossible at present to give further vital statistics regarding these nomads but it is believed that vaccination is fairly well established among them.

HYOSCINE-MORPHINE-CACTIN ANÆSTHESIA.

IN a recent number of the *International Journal of Surgery* Dr. Emory Lanphear of St. Louis, Missouri, recommends the use of a combination of hyoscine, morphine, and cactin for the production of narcosis in country practice and in labour. He has used it with satisfactory results in 300 major surgical or severe obstetrical operations. The narcotic is prepared in the form of tablets, each containing $\frac{1}{100}$th of a grain of hyoscine hydrobromide, a quarter of a grain of morphine hydrobromide, and $\frac{1}{17}$th of a grain of cactin, the last being a product derived from cereus grandiflorus, the night-blooming cereus. Dr. Lanphear states that under the influence of two, or at most three, tablets the most severe and prolonged operations may be performed in country practice with apparent safety. The hyoscine so completely antagonises the poisonous properties of the morphine that there need be no hesitation in using three tablets in three hours if two doses do not produce the desired effect. The narcosis is too profound and the subsequent sleep is too long to warrant the use of this combination in minor surgery. It is injected into the arm, the first dose three hours and the second one and a half hours before operating, a third dose being administered if needed when the patient is put upon the table. In cases of accident requiring an operation the cactin soon decreases the shock and the patient soon becomes tranquil and partially narcotised under the influence of the morphine and hyoscine. In employing this narcotic mixture the respiration frequently falls as low as eight per minute, while the pulse remains normal or becomes slightly accelerated, but the respiration usually becomes normal during, or soon after, the operation. This statement appears to conflict with the assertion that hyoscine antagonises morphine in this combination. If the patient breathes less than six times per minute he should be awakened from time to time by shaking, but so long as the pulse is good and the face is red (i.e., not purple) there is no serious danger. Dr. Lanphear has neither experienced nor heard of any serious results or unpleasant experiences from the use of this anæsthetic. It does not materially interfere with uterine contractions, and so far as is known it does not affect the fœtus in any way. It should usually be given only after the os uteri is dilated so far as to admit two fingers. In one and a half hours a second dose may be injected if required, and after half an hour, unless the patient is unusually nervous, forceps delivery may be made. Occasionally a third dose may be necessary in contracted pelvis or for Cæsarean section. Hyoscine and scopolamine have been largely used, both alone and in combination with morphine, and it is only right to point out that other workers have been less fortunate in their cases than Dr. Lanphear appears to have been. Whether cactin is an active and efficient addition to our armamentarium we think has yet to be proved.

THE CARE OF THE TEETH.

THE whiteness and beauty of the teeth of the African negroes are generally ascribed to the food which they eat and to favourable climatic conditions, but, according to a recent issue of the *Münchener Medizinische Wochenschrift*, these ignorant natives take special care of the teeth and are familiar with many remedies for the treatment of dental diseases. From the observations of officials in German colonies it appears that the natives exercise more care in preserving the teeth than do most Europeans. They may owe the possession of sound teeth of ivory whiteness partly to the influence of environment and habits, but in addition they employ many herbs, barks, and juices as prophylactic and curative agents. Thus, in Ngumba it is customary when a child has finished teething to rinse the mouth with an infusion of the leaves of the sson tree with the object of tightening the teeth. The action of the infusion is probably due to the presence of a styptic constituent in the leaves which causes the gums to shrink. The natives living near the source of the Nile employ the roots of a leguminous plant, *Dalbergia melanoxylon*, to relieve toothache, while the natives to the west of the source of the same river use an infusion of the seeds of kasso, a climbing vine, for the same purpose. It is interesting to notice that the use of the tooth-brush is not restricted to the so-called civilised peoples. The African negroes fashion tooth-brushes out of the wood of a species of adansonia and other trees. In this respect the natives probably have an advantage over those who use an ordinary bristle tooth-brush which is frequently used for six months or even longer—indeed, until it becomes too offensive to be tolerated longer. The sticks of wood such as the natives employ are, on the other hand, easy to make and cost nothing, and they are probably used for only a short time. They would possess the additional advantage of offering less opportunity for particles of food and other débris to be retained mechanically than is the case with a bristle brush.

ACUTE TENO-SYNOVITIS AFTER TONSILLITIS.

IT is now recognised that tonsillitis frequently precedes rheumatic fever. Indeed, some authorities, such as Professor William Osler, go so far as to say that there is always a primary infection in the lacunæ of the tonsils to which the rheumatic fever is secondary. Recent writers have reported other diseases as sequential to tonsillitis—acute nephritis, acute endocarditis (without the intervention of rheumatism), meningitis, and septicæmia. It appears that the tonsils may be the portal of entry of the microbes in these and other diseases. In the *Boston Medical and Surgical Journal* of July 25th Dr. E. A. Tracy has reported two cases of acute teno-synovitis following acute tonsillitis—a sequence that does not previously seem to have attracted attention. In the first case the patient was a man, aged 28 years, who sought advice for an affection of the foot. A week previously he had tonsillitis from which he recovered without medical treatment. He was in bed, had moderate fever, and complained of pain in the left ankle. On attempting to move the joint great pain was felt. There were marked swelling and tenderness over the common sheath of the peroneal tendons, which evidently contained fluid. Under salicylates and local elastic pressure recovery took place in a week. In the second case, a man, aged 35 years, had acute tonsillitis for a week and was treated with domestic remedies. A few days after this subsided he had an acute attack of pain in the feet and in the region of the lower part of the tendo Achillis. He came under observation

towards the close of this attack when tenderness was confined to the lower third of each tendo Achillis and pain occurred when the tendons were put in motion. Absolute rest and painting with tincture of iodine were ordered and recovery took place in three days. That tonsillitis is liable to be attended with serious complications is not sufficiently appreciated. People, as these cases show, often fall into the error of regarding it as a trivial affection which they are competent to treat.

DIRECT INFECTION IN ENTERIC FEVER.

SOME attention has recently been directed to the possibility of direct infection in enteric fever, of the same nature as occurs in measles or scarlet fever, as opposed to the well-recognised mode of conveyance by drinking water and milk. An outbreak which occurred at the State Hospital, Trenton, New Jersey, affords a good illustration of the possibility of direct conveyance from patient to patient under favourable conditions, though it does not throw much light on the possibility of contagion when ordinary measures of cleanliness are carried out. In this instance a case was admitted to the west wing of the asylum, and ultimately 80 cases occurred in the main building, of which this was a part, whereas none occurred in the annex which was dependent upon the same supplies of water and milk. Clearly direct conveyance was at work, and this was easily explicable by the dirty habits of the inmates, owing to which contamination of bathrooms, door-knobs, and furniture was unavoidable, while spoons and forks were washed by the patients without boiling water and could scarcely escape infection. Cases from time to time occur in our hospitals in which a patient occupying the next bed to a sufferer from enteric fever contracts the disease. These are usually ascribable to some defect in the precautions taken by the nursing staff. The question which it is of importance to settle is whether without any direct conveyance of germs on eating utensils or other such vehicles an air-borne infection exists. This is not yet satisfactorily decided, but it must at any rate be regarded as a rare occurrence in view of the infrequency of such cases in general hospitals to which cases of enteric fever are admitted in company with sufferers from other diseases.

BUTTERMILK IN THE FEEDING OF INFANTS.

Dr. H. C. Carpenter of Philadelphia has recently advocated the feeding of infants with buttermilk in cases of gastro-intestinal disorders and infantile atrophy and in view of a recent correspondence in our columns we think his observations of interest.[1] Buttermilk contains on an average from 0·5 to 1·5 per cent. of fat, though sometimes there is as little as 0·25 per cent. From 2 to 3 per cent. of proteid is found in average samples of buttermilk. The calcium casein of ordinary milk undergoes a change to casein lactate during the preparation of buttermilk. It is noteworthy also that buttermilk contains a higher proportion of albumin than does ordinary milk. Infants take it readily and it causes no unpleasant effects. A few vomit slightly during the first one or two days. Dr. Carpenter considers that the advantage of buttermilk is due not so much to the low proportion of fat as to the greater ease with which the proteids are digested. Several infants who were unable to digest milk containing 0·75 per cent. of calcium casein were able to digest the 2 to 3 per cent. of casein lactate in buttermilk. At the Philadelphia Hospital the following method is employed in preparing it. A pint of fresh milk is allowed to stand for 24 hours in a jug covered with a cloth at a temperature of rom 65° to 70° F. The cream is then skimmed off and the sour milk is churned for 15 minutes in a glass churn of the capacity of one quart. It is then placed on ice and is fit for administration during the next 24 hours. At this hospital it is given in the form of a food, which is prepared as follows. A quart of buttermilk is added gradually at first with constant stirring to one teaspoonful of wheaten flour and four tablespoonfuls of granulated sugar. The food is then heated just to the boiling point in a double saucepan with constant stirring, care being taken not to curdle it by excessive boiling. It is cooled rapidly and kept in bottles ready for use.

[1] THE LANCET, Sept. 7th (p. 733) and 14th (p. 794), 1907.

THE ORIGIN AND PREVALENCE OF ENTERIC FEVER IN THE DISTRICT OF COLUMBIA.

THE enteric fever problem in any one city or country is not radically different from that in many other communities. Enteric fever forms a world-wide problem. The disease is endemic in almost every civilised community. The prevalence of the disease in Washington has long been a matter of concern to the inhabitants of the District of Columbia. The visitor to Washington observing the broad boulevards and the stately buildings and the general air of beauty and cleanliness of the city is surprised to learn that the death-rate is comparatively high, especially from enteric fever. As the water of the Potomac, the source of the water-supply, was considered impure a large expense was incurred in constructing sand filters, under the supervision of the Engineering Corps, United States Army. The filtered water has been supplied to the city since November, 1905, and yet the disease assumed an epidemic form in July, 1906. Arrangements were then made for almost the whole force of the hygienic laboratory, under Surgeon-General Walter Wyman, to coöperate with Dr. William C. Woodward, the health officer of the district, in order to solve the problem. The results of several months' work have recently been published.[1] The investigations include a sanitary survey of the Potomac watershed; an epidemiological study of 866 cases of the disease; daily chemical and bacteriological examinations of the water-supply; an examination of pumps, wells, springs, ice and ice factories, bottled waters, shellfish, salads, fruits, and other foods; and an inspection of dairies and laboratory examinations of the milk-supply. Special attention has been paid to the communicability of the disease from person to person by direct or indirect contact. The relation of privies and sewers to wells has been studied and the question of flies and other insects as carriers of infection has received attention. The bathing beaches and public markets have been inspected. Finally, many specimens of fæces have been subjected to examination in order to determine the possible relation of animal parasites to the disease. The report contains numerous maps, charts, diagrams, and curves and forms a most comprehensive monograph on the subject. It affords valuable information to medical officers of health in any part of the world because the situation in Washington has been studied, not only with regard to local requirements and conditions, but also in relation to studies made of the disease in other countries.

THE next International Congress on Tuberculosis, held under the auspices of the National Association for the Study and Prevention of Tuberculosis, will meet in Washington on Sept. 21st to Oct. 12th, 1908. Dr. Theodore Williams, who has been elected a Vice-President of the Association in the room of the late Sir William Broadbent, has accepted an invitation from the committee to deliver one of the special addresses at Washington.

THE Department of Public Health of Queensland, in a bulletin dated August 24th, states that no case of plague has occurred in Brisbane since July 26th. As regards the

[1] Bulletin No. 35, Hygienic Laboratory, United States Public Health and Marine Hospital Service, p. 361, 1907.

Mauritius, a telegram from the Governor received at the Colonial Office on Sept. 27th states that for the week ending Sept. 26th there were 5 cases of plague and 5 deaths from the disease.

THE annual meeting of the Incorporated Society of Medical Officers of Health will be held on Friday, Oct. 11th, at 5 P.M., when the President, Dr. George Reid, will deliver an address upon the Planning of Schools, with Special Reference to their Ventilation. The annual dinner of the society will be held at the Trocadéro Restaurant, Piccadilly-circus, London, W., on the same evening.

AT the request of the committee of the Manchester Medical Society Sir Felix Semon will deliver an address in the General Theatre, Medical School, University of Manchester, at the opening meeting of the session, 1907–08, on Wednesday evening, Oct. 16th, at 8.15, entitled, "English and German Medical Education—A Parallel."

THE first meeting of the Clinical Section of the Royal Society of Medicine will be held at 20, Hanover-square, London, W., on Friday, Oct. 11th, at 8.30 P.M. The President of the section, Sir Thomas Barlow, will deliver an inaugural address and there will be an exhibition of clinical cases commencing at 8 P.M.

Colonel F. J. Lambkin, R.A.M.C., lecturer on syphilology at the Royal Army Medical College, is proceeding to the Uganda Protectorate, at the instance of the Secretary of State, to report on the prevalence of syphilis in that colony and to suggest measures for checking its ravages.

THE first lecture of the winter session, 1907, at the National Hospital for the Paralysed and Epileptic, Queen-square, London, W.C., will be given on Tuesday, Oct. 8th, at 3.30 P.M., by Dr. James S. Collier, on Local Lesions of the Spinal Cord.

Professor Charles Stewart, F.R.S., who had been ill for some time, died on Sept. 26th. He had held the post of Conservator of the Museum of the Royal College of Surgeons of England for 25 years. We shall publish an extended notice of his career in a future issue.

THE SIXTY-FIRST ANNUAL REPORT OF THE COMMISSIONERS IN LUNACY.

THE number of officially known insane in England and Wales on Jan. 1st, 1907, was 123,988, a number exceeding that recorded on Jan. 1st, 1906, by 2009. The increase for 1906 may be contrasted with that of 2150 for 1905, of 2630 for 1904, and of 3235 for 1903. The annual average increase for the ten years ending Dec. 31st, 1906, was 2462 and that for the five years ending on the same date 2655. The increase for 1906 was therefore less by 453 than the annual average of the decennium and by 646 than the quinquennial average.

Distribution of insane patients.—The returns show that 73·5 per cent. of the total number of patients were maintained in the county and borough asylums, the actual increase in such institutions over last year's figures amounting to 1818. In the registered hospitals the number exceeds that of last year by 43, in the provincial licensed houses there is an increase of 54, in the State criminal asylums (Broadmoor and Parkhurst) an increase of 41, in the ordinary workhouses an increase of 74, and an increase of 88 in the metropolitan district asylum. On the other hand, the following diminutions are to be noticed: 5 in the metropolitan licensed houses, 47 in the naval and military hospitals, 34 in the number of private patients, and 23 in the outdoor paupers.

Distribution of private insane in institutions, &c.—The private patients on Jan. 1st, 1907, numbered 9889 (4322 males and 5567 females), an increase of 87, being 70 below the average increase of the last ten years and as much as 75 below the increase for 1905. Of the total number 37 per cent. are cared for in registered hospitals, 29 per cent. in licensed houses, 27 per cent. in county and borough asylums, and 5 per cent. as "single patients." The proportion of private patients in county and borough asylums to the total number therein has risen from 2·8 to 2·9 per cent.

Distribution of pauper insane in institutions.—The pauper patients on Jan. 1st, 1907, numbered 113,136 (52,118 males and 61,018 females) and constituted 91·2 per cent. of all the certified insane. They have increased by 1880, a figure which is less by 99 than that of the increase in 1905. Their percentage distribution was, in asylums, 78; in hospitals and licensed houses, 1; in ordinary workhouses, 10; in metropolitan district asylums, 6; the remaining 5 per cent. being "outdoor" paupers.

The *criminal lunatics* (736 males and 227 females) have increased by 42, the total under care on Jan. 1st, 1907, being 963, of whom 147, or 15·2 per cent., were in county and borough asylums. The opening of the Parkhurst asylum accounts for the additional 41 in excess of last year's figures, all these being males.

Distribution of pauper insane in counties and boroughs.—In the 63 administrative counties there has been a net increase in the number of insane paupers in 38 counties. In 22 counties there has been a net decrease and three counties (Flint, Radnor, and West Suffolk) remain as before. The county of London stands first with an increase of 356 over last year's number. Middlesex shows an increase of 138, Surrey 46, West Riding of Yorkshire 98, Monmouth 46, and Notts, 55. Of the 72 county boroughs there were 45 in which an increase in the pauper insane occurred amounting to 927 in all, and in 26 a decrease amounting to 178, whereas Gloucester remained as before. The highest increases and decreases occurred as follows—*increases*, 73 in Salford, 67 in Plymouth, 54 in Leeds, 53 in Liverpool, 52 in Bristol, 51 in Leicester, and 44 in West Ham; *decreases*, 28 in Birkenhead, 14 in Bootle, 12 in Rochdale, and 10 each at Portsmouth and Swansea.

Ratio of insane to population.—On Jan. 1st, 1907, the total number of notified insane persons in England and Wales stood to the estimated population in the proportion of 1 to 282, or 35·48 per 10,000. On January 1st, 1897, this ratio was 31·89. The Commissioners in Lunacy give a chart showing comparative variations in the proportion of the insane in England and Wales (and of the pauper and private classes respectively) to total population 1859–1907. The ratio per 10,000 in the "private" class was 2·38 in 1859 and rose to 2·97 in 1879 and now stands at 2·83. The "pauper" ratios, on the other hand, have risen continuously from 15·95 to 32·37. As an index of the rate of increase or decrease of insanity at the present time the ratio of admissions to population is an instructive one. Calculating the admission rate per annum on 10,000 of population, the Commissioners find that in the year 1869 this was 4·71, in 1902 it was 6·93, and in 1906 it was 6·31, so that in 1902 this ratio was higher than that of 1869 by 47·1 per cent. and in 1906 by 34·0 per cent. The ratios for first admissions, for which figures are only available from 1898, yield a rate of 4·92 for that year, of 5·76 for 1902, and of 5·16 for 1906.

The rise in numbers of first attacks.—The Commissioners in Lunacy state "that in order to obtain even an approximate estimate of the occurring prevalence of insanity in a community it is not merely inadequate, but even misleading, to assign importance to the annual comparison of the total numbers of the insane under care, and similarly the record of yearly admissions may be liable to misinterpretation." For it must be borne in mind that annual admissions include no small proportion of persons who have been previously under care, whilst it does not necessarily follow that a "first admission" implies a "first attack" of insanity in the individual.

From a study of the annual averages calculated on the figures of the last six quinquennial divisions, and contrasting the total annual admissions with the totals of ascertained first attacks of insanity, it would appear that the latter have increased absolutely and relatively (to population) to a greater extent than the former. Thus the quinquennial average of male admissions has arisen from 6449 to 10,741, and of female from 6653 to 11,179, in the years 1876–80 and 1901-05 respectively, giving a rate of increase for males of

66·5 per cent. and for females 68·0 per cent. As regards first attacks of insanity, the increase for males has been 75·7 and for females 71·9 per cent. in the like period (reckoning only four years of the first quinquennium, owing to the lack of figures for 1877). It would appear from this analysis that it is only during the past decade that any marked preponderance of cases admitted with their first attack of insanity has occurred, whilst contrasting the first of the six quinquennia with the last it will be seen that whilst the ratio of the total admissions has risen, for males 25·7 per cent. and for females 25·3, the ratio of first attacks has increased by 32·7 per cent. in the case of males and 28·2 per cent. in that of females. The Commissioners, however, consider that there are factors to be considered which render it impossible to determine accurately whether the actual proportion of "occurring" insanity is really increasing in the community. It is probable that far more care is now taken to treat persons suffering from milder forms of insanity than used formerly to be the case, and also in the case of aged persons suffering from a "first attack of insanity" removal to asylums is well known to be on the increase. Thus many defectives are being now notified who a generation or two ago would have been left outside the pale of official recognition, and the statistics which seem to point to an increase of insanity are too open to qualification to justify such a conclusion, and their numbers are influenced by factors the extent of which cannot be estimated.

Admissions, disoharges, and deaths in 1906.—The admissions, 21,812 in number, exceeded the number for 1905 by 190 and of the total admitted as many as 17,828, or 81·7 per cent., were *first* admissions. The recovery-rate on admissions was 37·32 per cent., which was 0·22 below the average for the last ten years. The death-rate on the daily average number resident was 9·85, being 0·11 below the average for the decade.

Sex, age, and conditions as to marriage.—Of the total insane under care 53·9 per cent. were of the female sex and 46·1 were males. The average annual admission rate (1901–1905) gives 49·0 and 51·0 per cent. as the male and female distribution. The latter figures closely approximate to the relative distribution of the sexes in the general community. The average death-rate of the past ten years of the female insane is only 8·63, compared with 11·55 for males. About one-fourth of both sexes were below the age of 35 years and nearly one-eighth above that of 65 years. The average admissions for the years 1901 to 1905 of persons over 65 years of age was for both sexes 15·2 per 10,000 of population. There was a higher proportion of single and married persons amongst the males and of widowed amongst the females.

Form of insanity in relation to first attacks.—The Commissioners went fully into this subject in their fifty-ninth report and they now supplement their statements by publishing a table giving the figures for 1904 and detaching the cases of senile dementia from the rest in their original series. This brings to light an apparently new fact, which is that in the age period 65 and upwards the majority of those who incur such a degree of failure in mental capacity as to require special care and protection are individuals who have not previously been mentally deranged. For it will be found that of 1164 persons with senile dementia only 106, or little more than one-tenth, were known to have been previously of unsound mind.

General paralysis of the insane.—During the five years 1901–05 the annual number of patients admitted with general paralysis was 1465, of whom 1225, or 83·6 per cent., were males. As regards sex distribution, it is remarkable that in the private class only about 7 per cent. of the general paralytics were females, whilst in the pauper class nearly 17·5 per cent. were of this sex. The "married" general paralytics at all ages constituted 10 per cent. of total admissions, the single 3·5, and "widowed" 4·1 per cent. respectively.

Epilepsy and insanity.—The proportion of the certified insane admitted during 1905 who were suffering from epilepsy remained at 7·7 per cent. More than three times the rate is met with in the pauper class (8·4) than in the private (2·5).

Statistics of criminal lunatics.—On Jan. 1st, 1907, there were 736 male and 227 female criminal lunatics detained either in State criminal asylums or county or borough asylums. Of these, 610 males and 206 females were in the State criminal asylums. Of the 904 criminal lunatics detained on Dec. 31st, 1904, 696 were ordered to be detained during the King's pleasure, and 208 were detained under the Secretary of State's warrant. Of the 890 of these criminal lunatics who had committed indictable offences, 407 were guilty of murder, 147 of attempt to murder, 28 of manslaughter, 41 of felonious wounding, 44 of malicious wounding, and 51 of other crimes against the person, or 718 in all, a proportion of about 80 per cent. of the whole number of criminal lunatics convicted of indictable offences.

Boarding-out of patients in workhouses and under reception contracts.—In order to some extent to meet the pressure for accommodation in county and borough asylums Section 26 of the Lunacy Act, 1890, has provided that, with the consent of the Local Government Board and of the Commissioners in Lunacy, and subject to their regulations, patients may be boarded out in selected workhouses where special provision has been made for them. Four asylums—viz., Lancashire at Prestwich, East and West Suffolk, Salop and Montgomery, and Cambridge—have exercised such powers. At present only two—namely, Prestwich and Salop and Montgomery—are availing themselves of this accommodation. On Jan. 1st last 70 males and 29 females were thus boarded out. The Commissioners publish a table showing to how great an extent some of the local authorities are behindhand in providing accommodation in their own asylums for the patients of their district and how great is the additional expense entailed upon ratepayers by the neglect to provide sufficient accommodation.

Nurses.—The report deals very fully with several important matters connected with the nursing staffs of the asylum, especially with regard to hours of duty, wages, and superannuation allowances.

The average weekly cost of maintaining the patients in the county and borough asylums for the year ending March 31st, 1906, exclusive of repairs, additions, and alterations, was 9*s.* 11⅝*d.* in county asylums and 10*s.* 11½*d.* in borough asylums. These figures compared with those of the previous financial year show a reduction of 2*d.* per head in the average weekly cost of all asylums taken together. The report deals fully with the various classes of institutions for the insane. County and borough asylums now number 91. The Commissioners express themselves as satisfied with the management of these with few exceptions.

Insufficiency of asylum accommodation.—Special mention in made of insufficiency of accommodation in the county of Durham, Glamorganshire, Lancashire, London County, and several county borough asylums. Referring to the London County the Commissioners in Lunacy state that they are unable to report that anything definite has been settled with regard to the provision of an eleventh asylum for the County of London, though the necessity for this additional accommodation is very great, for at the end of the year the existing nine asylums were overcrowded to the extent of 438 patients, while 1860 patients were boarded-out in county and borough asylums, hospitals, and licensed houses. It is hoped that the Long Grove or tenth asylum, to accommodate 2000 patients, will soon be opened, though it is obvious that this institution will not even provide accommodation for all the surplus patients there are at present and when it is borne in mind that the average annual increase of pauper lunatics of the county for the five years 1902–06 has been 630 the position is indeed a serious one.

There were 25 suicides of patients in county or borough asylums during the past year, but in eight of these the patients were at the time absent on trial, and in four the suicidal act was committed before admission into the asylum. During the past year the asylums have been free from serious outbreaks of infectious disease. There were 1205 cases of dysentery and 821 cases of epidemic diarrhœa treated in the 91 county and borough asylums during 1906, and the incidence-rates of the various institutions are given. The death-rate from tuberculosis in these asylums was 16·2 per cent. of all deaths.

The Commissioners make some important remarks regarding the boarding-out of pauper patients and begin by stating that "we have for some time past felt it desirable that extended powers should be given to the committees of county and borough asylums for the boarding-out in suitable circumstances of patients who are maintained at the public charge." Registered hospitals for the insane still number only 14; of these the Commissioners speak in very favourable terms. Licensed houses for the insane number 65 and contain 3392 patients; they are reported to be maintained in good order.

The report concludes with a reference to the over-worked condition of the Commission and the following statement deserves most careful consideration. "A Royal Commission has been appointed to consider the constitution, working, and jurisdiction of this Commission and has, we believe, practically concluded the taking of evidence. Pending further action, however, the statutory duties of the Lunacy Commission are, from lack of strength, unable to be adequately discharged and an addition to our number is urgently needed." The above is a brief summary of the elaborate report which deals with a vast amount of material in a most instructive manner on the basis of numerous statistical tables.

THE CENTENARY OF THE GEOLOGICAL SOCIETY.

THE following congratulatory address was delivered by Mr. HENRY MORRIS, the representative of the Royal College of Surgeons of England, at the recent centenary of the Geological Society:—

TO THE PRESIDENT AND FELLOWS OF THE GEOLOGICAL SOCIETY OF LONDON.

We, the President, Vice-Presidents, and Council of the Royal College of Surgeons of England have the honour to convey to the Geological Society of London our cordial congratulations on the occasion of the celebration of its centenary.

It is interesting to us to remember that from the Middle Ages onwards there have been students and teachers of medicine and surgery, as well as distinguished anatomists, who have taken part in and stimulated geological researches.

In the history of the origin and progress of geology occur the names, for instance, of Fallopio and Steno of Padua, and Cesalpino of Pisa; of Fuchsel of Germany; of Drs. Robert Hooke and Woodward of England, and of the illustrious James Hutton of Scotland, the propounder of the "Huttonian Theory," and the exponent of the uselessness of the many fanciful attempts to form what were called "Theories of the Earth"; whilst but a few years ago John Whitaker Hulke, F.R.S., who was President of this College, was also President of the Geological Society of London.

May we be allowed to express our admiration of the part taken by the society ever since its foundation in 1807 in encouraging and promoting the study of geology as an inductive science; in unfolding numerous and unexpected truths; and in correcting many misconceptions and erroneous hypotheses; and may we add that we look forward with confidence to the discovery of still further important results as the outcome of the labours of the present and future Fellows of the society.

In offering our best wishes for the success of the present commemoration ceremonies we desire also to state what great pleasure we have felt in accepting the invitation of the society to take part with it in its centenary celebration.

In witness whereof we have caused the Common Seal of the College to be hereunto affixed this 25th day of July, 1907.

HENRY MORRIS, President.

The address by Dr. M. C. Grabham, the representative of the Royal College of Physicians of London, will be found at p. 949 of our present issue.

A visit to St. Paul's Cathedral of the geologists at present in London at the celebration of the centenary of the Geological Society took place on Friday afternoon, Sept. 27th. The party met at the Chapter House and were received by Dr. Grabham, the representative of the Royal College of Physicians at the celebrations, by whom the visit was arranged and organised. In addition to the distinguished gathering of geologists there were present a number of guests, including Sir Dyce Duckworth, Dr. Edward Liveing, and Dr. Dawson Williams. The party was met at the Cathedral steps by Canon Scott Holland who showed some of the principal features of interest and delivered a short but very interesting address upon the foundations of the Cathedral and the characters of the soil upon which it was built. He stated that the records showed the extraordinary care which was devoted by Sir Christopher Wren to the matter and that recent researches in connexion with the stability of the building brought to light the interesting fact that certain cracks and other defects to which attention has lately been drawn occurred during Wren's lifetime and that he had dealt with them. They therefore did not represent any new defects and the investigation showed that the building was safe so long as the water in the gravel beneath it remained at its present level. Other objects of interest were pointed out by Dr. Grabham, including a monument to Dr. Babington who was the first of the medical presidents of the society. The crypt was visited also, Mr. Somers Clark acting as guide. The venerable Dean Gregory was also present to welcome the visitors. After the visit tea was served in the Chapter House, at which the Lord Mayor of London was present. The visit was thoroughly enjoyed by the whole party and reflects great credit upon Dr. Grabham's organisation.

Looking Back.

FROM

THE LANCET, *SATURDAY*, Oct. 3rd, 1829.

On the Plague. Br. Dr. E. DI WOLMAR.

(Dr. E. di Wolmar, Abhandlung über die Pest, nach vierzehnjährigen eigenen Erfahrungen und Beobachtungen. Mit einem Vorwort von C. W. Hufeland. 1827.)

THE author of this interesting work is a native of Rome, who, after having travelled through Europe, Asiatic Turkey, and Barbary, resided for some time at Constantinople, from which place he went to Egypt and settled at Cairo, where he became a favourite of the famous Murat Bey, of whose seraglio he was appointed physician. After the occupation of Egypt by the French, he was forced to enter into their service, and was appointed by Buonaparte a member of the great Divan at Cairo. After the expulsion of the French army by the English and Turks he resumed his former occupation, but returned to Europe in 1802, and has since resided at Berlin.

The results of his numerous observations on the plague, with which he was himself twice affected, are very interesting. He is decidedly of opinion, that it is not endemic in Egypt, but is always carried there from other countries, especially from Constantinople. (According to the testimony of the ancients, most epidemics were brought from Ethiopia to Egypt, and thence to Greece.) The great propagation and mortality of the disease arise almost entirely from the general belief of predestination amongst the Turks; this belief, and the inactivity which it naturally produces, go so far, that they, in cases of poisoning, not only do nothing, but also very unconcernedly administer poison, with the excuse that if death is not predestined, it can do no harm. (That this belief of the inhabitants of Egypt has for centuries kept up the plague there, was asserted long ago by Prosper Alpinus de Medicina Ægyptiorum, cap. xv.)

The author observed four epidemics of the plague. The general symptoms of infection are, great lassitude, headach, loss of appetite, dyspnœa, shivering along the spine, restlessness, sickness, spasmodic contractions of the extremities, and delirium; one of the most certain signs is a bright ecchymosis in the internal angle of the eye. The buboes and carbuncles appear immediately after the first febrile paroxysm, on different parts of the body. A favourable event may be expected, if the fever is not very high, the lassitude not too great, and the eruption of buboes accompanied by a copious perspiration over the whole body; also if the buboes soon suppurate, and do not become of a dark colour; the opposite symptoms are often followed by sudden death, with violent convulsions, sometimes from apoplexy. The buboes and petechiæ are apparently of a critical nature. It is worthy of remark, that cachectic individuals are but seldom infected by the plague, the disease in such cases being more of a chronic character; also in the poorer classes, persons addicted to the abuse of spirits and wine, and in broken constitutions; on the other hand, individuals in the full enjoyment of good health, are most liable to infection. In plethoric patients, the disease is of very short duration, and very dangerous, if venesection be not employed on the first attack: the blood coagulates so quickly, that a minute after it has been taken the vessel may be turned over without spilling one drop; inoculation has no prophylactic power; the author relates the case of a sea captain, who was

affected by the disease for the seventh time. Dr. E. W. mentions, that in Ethiopia small-pox is very often observed twice in the same person; the second attack not unfrequently takes place in old age, and, in most cases, proves fatal.

Bleeding, or an emetic, according to the constitution of the patient, and cooling medicines, form the treatment recommended by the author; the breaking out of the petechiæ and buboes, and the suppuration of the latter, are to be promoted as much as possible. The best proof that this method affords, at least, an equal chance of a favourable event, is, that the Turkish practitioners, who place their confidence exclusively in imaginary remedies, bezoor, mummies, &c., lose almost all their patients.

The disease is, in all cases, produced by an external contagium, the diffusion of which is greatly facilitated by the public baths, coffee-houses, mosques, cemeteries in the towns, &c. Seclusion gives the best and only security from infection; the christian merchants at Cairo, who, at the first appearance of the epidemy, shut themselves up in their houses, and cut off all communication with the inhabitants of the town, have, in almost every epidemy, escaped infection. The author mentions an instance, where the plague was imported into a part of the Francs' quarter by the incautious introduction of money from the infected town. The development and diffusion of the contagion appear, however, to require a peculiar condition of the atmosphere. Southern winds, during the chamsin, always create a general apprehension of the plague; the setting-in of northern winds during an epidemy, almost immediately stops its progress, and the houses and shops are re-opened.

MEDICINE AND THE LAW.

A Coroner Disagrees with a Jury's Verdict.

AT the Hackney coroner's court recently a verdict of accidental death was returned at an inquest upon the body of a man who had died in the following circumstances. He had been at one time a member of the London County Council but had failed to retain his seat at the recent election and there was evidence that this, coupled with the consequent absence of occupation, had caused him to be depressed. He had not threatened to take his own life, but on one occasion had been heard to say when at the seaside "If I could lie down there I should be at rest, but would not do such a wicked thing." He had also, two days before his death, had what was described as a fall in his bath, in consequence of which he had been put to bed, and it was proved that he then took a sleeping draught under the influence of which he slept until late on the morning of his death. In the course of that morning his bedroom door was found to be locked and after it had been forced open he was discovered lying on the hearth-rug unconscious with his head close to a gas-ring, which had been fully turned on. Post-mortem examination showed that death was due to the inhalation of the escaped gas. The jury in returning their verdict expressed through their foreman the opinion that the deceased had fallen and had turned on the gas accidentally. The deputy coroner, who presided, intimated in recording the verdict that he did not agree with it.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN 76 of the largest English towns 8076 births and 4455 deaths were registered during the week ending Sept. 28th. The annual rate of mortality in these towns, which had been equal to 12·3, 12·3, and 13·5 per 1000 in the three preceding weeks, further rose to 14·5 per 1000 in the week under notice. During the 13 weeks of the past quarter the death-rate has averaged 13·1 per 1000, the rate during the same period being 12·1 per 1000 in London. The lowest death-rates in the 76 towns last week were 6·0 in Northampton, 6·2 in Hastings, 7·0 in Hornsey, and 7·1 in Smethwick; the highest rates were 20·0 in Ipswich, 20·4 in Swansea, 21·9 in Liverpool, 22·6 in Merthyr Tydfil, 23·0 in Wigan, and 24·1 in Bootle. The 4455 deaths in the 76 towns last week were 306 in excess of the number in the preceding week, and included 786 which were referred to the principal epidemic diseases, against 471, 485, and 630 in the three preceding weeks; of these 786 deaths 539 resulted from diarrhœa, 91 from whooping-cough, 58 from diphtheria, 39 from measles, 35 from scarlet fever, and 24 from "fever" (principally enteric), but not any from small-pox. No death from any of these epidemic diseases was registered last week in Hastings, Bournemouth, Reading, Ipswich, or Tynemouth; among the other towns the death-rate from these diseases ranged upwards to 7·1 in Sheffield, 7·5 in Merthyr Tydfil, 7·7 in Wigan, and 7·8 in Bootle. The fatal cases of diarrhœa, which had risen successively in the 11 preceding weeks from 39 to 397, further increased to 539 in the week under notice; the mortality from this cause ranged upwards to 4·1 in Stockport and in Merthyr Tydfil, 5·8 in Rotherham, 6·0 in Sheffield, 7·0 in Bootle, and 7·1 in Wigan. The deaths from whooping-cough, which had been 76, 80, and 95 in the three preceding weeks, declined again to 90 last week; the highest death-rates from this disease were 1·1 in Walsall, 1·2 in York and in Gateshead, and 1·4 in King's Norton and in Newport (Mon.). The 58 fatal cases of diphtheria exceeded the number in any previous week of the quarter, the greatest proportional mortality in the week under notice being 1·3 per 1000 in Middlesbrough. The deaths from measles, which had been 71, 35, and 43 in the three preceding weeks, declined again to 39 last week, and caused death-rates ranging upwards to 1·0 in Newcastle-on-Tyne and 3·4 in Merthyr Tydfil. The fatal cases of scarlet fever, which had been 26 and 31 in the two previous weeks, further rose to 35 in the week under notice, and included 14 in London, three in Manchester, and two each in Liverpool, Aston Manor, and Warrington; in the two last-mentioned towns the death-rates from this disease were 1·3 and 1·5 respectively. The deaths referred to "fever," which had been 12 and 20 in the two previous weeks, further rose last week to 24; of these six occurred in London, three in Bolton, and one in each of 15 other towns. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had risen from 2658 to 4021 in the 20 preceding weeks, had further increased to 4328 at the end of last week; 787 new cases were admitted during the week, against 587, 574, and 695 in the three preceding weeks, the numbers in the last two weeks being successively the highest on record. The deaths in London referred to pneumonia and other diseases of the respiratory system, which had been 116, 122, and 130 in the three preceding weeks, further rose to 148 in the week under notice, but were nine fewer than the corrected average number for the corresponding period of the five years 1902-06. The causes of 32, or 0·7 per cent., of the deaths registered in the 76 towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Leeds, West Ham, Bradford, Newcastle-on-Tyne, Hull, Nottingham, and in 54 other of the 76 towns; there were five uncertified deaths in Liverpool, five in Birmingham, five in Portsmouth, three in Sheffield, two in South Shields, and two in St. Helens.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in eight of the principal Scotch towns, which had been equal to 15·3 and 13·3 per 1000 in the two preceding weeks, rose again to 13·6 per 1000 in the week ending Sept. 28th, but was 0·9 per 1000 below the mean rate during the same period in the 76 large English towns. The rates in the eight Scotch towns ranged from 8·7 in Aberdeen and 10·0 in Leith to 15·0 in Perth and 15·7 in Dundee. The 472 deaths in these towns last week were 10 in excess of the number in the previous week, and included 64 which were referred to the principal epidemic diseases, against 58, 69, and 51 in the three preceding weeks. These 64 deaths were equal to an annual rate of 1·9 per 1000, which was 0·7 per 1000 less than the mean rate last week from the principal epidemic diseases in the 76 large English towns; they included 31 which were referred to diarrhœa, 15 to whooping-cough, eight to "fever," six to measles, two to scarlet fever, and two to diphtheria, but not any to small-pox. The deaths from diarrhœa, which had been 20 and 27 in the two preceding weeks, further increased to 31 in the week under notice, and included 18 in Glasgow, six in Edinburgh, two

in Leith, and two in Greenock. The fatal cases of whooping-cough, which had been 22, 18, and 10 in the three preceding weeks, rose again last week to 15, of which seven occurred in Glasgow and five in Edinburgh. The deaths referred to "fever," which had been 22 and six in the two previous weeks, increased to eight last week, and included six in Glasgow, one in Paisley, and in Leith; of these eight deaths, five in Glasgow and one in Leith were attributed to cerebro-spinal meningitis. The fatal cases of measles, which had been three and four in the two preceding weeks, further rose last week to six, of which four were registered in Glasgow. The deaths in the eight towns referred to diseases of the respiratory organs, including pneumonia, which had been 57, 61, and 67 in the three preceding weeks, declined again to 58 in the week under notice, and were eight fewer than the number in the corresponding period of last year. The causes of 15, or 3·2 per cent., of the deaths in these eight towns last week were not certified or not stated; in the 76 English towns the proportion of uncertified deaths did not exceed 0·7 per cent.

HEALTH OF DUBLIN.

The annual rate of mortality in Dublin, which had been equal to 17·6 and 18·6 per 1000 in the two preceding weeks, was again 18·6 per 1000 in the week ending Sept. 28th. During the 13 weeks of the past quarter the death-rate has averaged 18·7 per 1000, the rate during the same period being 12·1 in London and 12·6 in Edinburgh. The 139 deaths of Dublin residents registered during the week under notice corresponded with the number in the previous week, and included 22 which were referred to the principal epidemic diseases, against 12, 15, and 13 in the three preceding weeks; of these, 17 resulted from diarrhœa, two from "fever," and one each from measles, from diphtheria, and from whooping-cough, but not any from small-pox or from scarlet fever. These 22 deaths were equal to an annual rate of 2·9 per 1000, the death-rate during the same period from the principal epidemic diseases being 2·1 in London and 2·0 in Edinburgh. The fatal cases of diarrhœa, which had been five, nine, and ten in the three preceding weeks, further increased last week to 17. The 139 deaths from all causes included 41 of children under one year of age and 23 of persons aged upwards of 60 years; the deaths of infants exceeded the number in the previous week, while those of elderly persons showed a marked decline. Four inquest cases and four deaths from violence were registered during the week; and 53, or 39·4 per cent., of the deaths occurred in public institutions. The causes of two, or 1·4 per cent., of the deaths in Dublin last week were not certified; in London only one uncertified death was registered, while in Edinburgh the proportion was 3·3 per cent.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments are notified:—Fleet-Surgeons: J. H. Acheson to the *President*, additional, for three months' study at West London Hospital; and O. W. Andrews to the *President*, additional, for survey of medical stores at Deptford. Staff-Surgeon: P. H. Boyden to the *President* for survey of medical stores at Deptford.

ROYAL ARMY MEDICAL CORPS.

Lieutenant Robert G. Archibald is seconded for service under the Colonial Office (dated Sept. 12th, 1907).

Lieutenant J. A. B. Sim has assumed medical charge of the Military Hospital, Berwick-on-Tweed.

Captain C. F. Wanhill has been appointed Assistant Professor in Hygiene at the Royal Army Medical College, vice Major C. E. P. Fowler.

ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Major Edmond W. St. V. Ryan, having resigned his commission in the Volunteers, ceases to belong to the Army Medical Reserve of Officers.

IMPERIAL YEOMANRY.

The King's Colonials: William Savile Henderson (late Surgeon-Captain 8th (Scottish) Volunteer Battalion the King's (Liverpool Regiment)), to be Surgeon-Lieutenant (extra), under the conditions of paragraph 28, Imperial Yeomanry Regulations (dated Sept. 1st, 1907).

VOLUNTEER CORPS.

Royal Garrison Artillery (Volunteers): 1st Dorsetshire: Surgeon-Lieutenant T. A. Walker to be Surgeon-Captain (dated Sept. 9th, 1907).

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

Staffordshire Bearer Company: Captain J. A. Wolverson resigns his commission (dated August 10th, 1907).

DEATHS IN THE SERVICES.

Staff-Surgeon William Thomas Billings, R N. (retired), on Sept. 27th, aged 86 years. He entered the service in 1845 and was promoted to staff surgeon in 1855. He served in the Black Sea during the Russian war (Crimean and Turkish medals).

On Sept. 21st, in his thirty-eighth year, Captain Harold Budgett Meakin, I.M.S., at Nordrach-upon-Mendip. He entered the service in 1898 as surgeon-lieutenant and was promoted to captain in 1901.

REGULATIONS FOR NAVAL MEDICAL OFFICERS ON SHIPS FOR TRAINING.

The *Army and Navy Gazette* of Sept. 28th states: "The regulations with regard to the pay of officers and men who fall sick while borne in ships for training, which have been approved and are to take effect forthwith, provide that an officer or man who may become ill while borne on the books of ships for training or course of instruction will either be treated on board or sent to a naval hospital as the case may require, or he may be discharged to the shore should he so wish. When treated on board his pay is to cease on the date on which he completes the period for which he embarked, but if before completing this period he is discharged, either to hospital or to the shore, his pay is to cease on date of discharge. A surgeon who falls sick while under training in a naval hospital is similarly to receive pay only to the date of ceasing to attend instruction. The pay of an officer or man or a surgeon under training in a naval hospital, who has been sent to a naval hospital or sick quarters for treatment of a serious bodily injury sustained by him while serving and arising from an immediate act of duty, or for treatment of insanity the result of accident on duty, will be continued under the same restrictions as in the case of persons in the Royal Navy."

The British Committee of Inquiry, organised by the National Service League, which recently visited Switzerland in order to study the practical working of the Swiss military system, especially in relation to employment and industrial conditions, has issued a brief but very favourable report signed by 22 out of the 27 members, the exceptions being the five Labour Members of Parliament.

Correspondence.

"Audi alteram partem."

PANCREATIC FERMENT AND CARCINOMA.

To the Editors of THE LANCET.

SIRS,—I have read with much interest the paper published in this week's issue of THE LANCET by Dr. Reginald Morton and Mr. H. Emlyn Jones on the Treatment of Mammary Carcinoma by the Local Injection of Pancreatic Ferment. The results arrived at coincide in the main particulars with those obtained in the cases in which I have tried this "trypsin treatment." My cases, seven in number, were all inoperable cases of rectal carcinoma. Four cases were in St. Mark's Hospital, three in Charing Cross Hospital. The first case was treated nearly three years ago, the last a few months since. Allen and Hanburys' sterile trypsin was used and every precaution taken to observe asepsis during and after the injection. The dose was the same—viz., 15 minims, gradually increasing to 30 minims The treatment was carried on for many weeks, and in two cases for nearly three months, on the lines laid down by the advocates of this treatment. In no single instance was there ever the slightest indication of any amelioration of any kind whatever. Having regard to the publicity given to

this form of treatment in a much-read daily paper, such facts as those given in the Archives of the Middlesex Hospital, as well as those published by Dr. Morton and Mr. Jones and myself, are really of public as well as professional interest.

I am, Sirs, yours faithfully,

Harley-street, W., Sept. 28th, 1907. FRED. C. WALLIS.

ACTINOMYCOSIS.

To the Editors of THE LANCET.

SIRS,—Reports sent into the Dublin public health committee during the past month state that a certain amount of flesh meat has been destroyed as unfit for food owing to the presence of actinomycosis. It is also known that a considerable amount of an affection colloquially called "wooden tongue," which is really a form of actinomycosis, prevails amongst dairy cattle both in Ireland and England. In view of this prevalence of the disease and of the fact that the actinomyces or ray fungus so readily finds its way into the respiratory and intestinal tracts, I suggest the necessity for bearing in mind this parasite when confronted with obscure pulmonary or abdominal lesions.

Several cases have lately come under my observation in which the physical signs of broncho-pneumonia were present, but the dulness instead of being patchy was uniform and the temperature abnormally high. These terminated fatally within a few weeks and were certified as due to acute tuberculosis, but more recent inquiries suggest that they may have been actinomycosis of the lungs. Certainly the clinical picture was most unlike phthisis, and the parties had nearly all some business connexion with cattle, but the suspicion did not arise in time for microscopical examination.—I am, Sirs, yours faithfully,

J. C. MCWALTER, M.A., F.F.P.S.Glasg., M.D.Brux.

Dublin, Sept. 28th, 1907.

DISEASE IN ASSAM.

To the Editors of THE LANCET.

SIRS,—In December, 1904, you were good enough to publish a letter I wrote in which I drew attention to the absence of cancer in Assam. As this statement has never been commented on as being incorrect I presume my experience is not unique. Since that letter was written I have still to experience my first case of that disease. Mr. R. W. Murray's letter in THE LANCET of August 17th on the subject of the distribution of hernia now reminds me that I have never, so far as I can remember, been called upon to treat this condition in an adult. Among other conditions that are very infrequently seen I may mention appendicitis, purulent effusions in the thorax, and "rusty" sputum in pneumonia. The last disease is very common indeed, and in most of our native hospitals there is generally a case. It often assumes almost an epi lemic form at times.

I am, Sirs, yours faithfully,

DENNYS J. DRAKE,
Medical Officer, Teypur Medical Association.

Assam, Sept. 6th, 1907.

ETHER ANÆSTHESIA BY THE OPEN METHOD.

To the Editors of THE LANCET.

SIRS,—During the past three months I have been making an extended trial of the administration of ether by the open method. I am bound to admit that though perfectly well aware that this was the one in use in the United States of America and in Canada I did not consider it likely that its results would bear comparison with those produced in England by the closed methods in vogue for the past 30 years. I have now, however, to record that the type of anæsthesia induced by the employment of ether vapour without re-breathing into a bag has in this trial proved much superior to that yielded by any other method or anæsthetic with which I have previously been acquainted. Under the open method the secretion of mucus is decidedly less, laboured breathing and strong abdominal movement are replaced by a type of respiration which, though free and audible, does not involve an ample excursion of the abdominal wall and is well suited for operations upon that region, the tendency to venous congestion is abolished, and the after-sickness is less both in frequency and duration.

These differences in the effects of ether on an open mask as compared with its administration by closed methods allow full advantage to be taken of its most valuable quality, to which I have often drawn attention—namely, that it more perfectly blunts the passage of nerve stimuli than any other anæsthetic and thereby abrogates the occurrence of the reflex laryngeal spasm which proves so troublesome a complication at certain stages of the operation under chloroform and its mixtures. Not only can adults be satisfactorily anæsthetised *ab initio* when required by ether on an open mask without undue delay, but there can be no question as to the very great safety of the method when proper precautions are taken to prevent exposure to cold nor as to the ease and simplicity with which anæsthesia may be maintained. I am, Sirs, yours faithfully,

Harley-street, W., Sept. 30th, 1907. H. BELLAMY GARDNER.

TREATMENT OF DIPHTHERIA.

To the Editors of THE LANCET.

SIRS,—My attention has only just been drawn to an article by Dr. C. Bolton, published in THE LANCET of Feb. 3rd, 1906, in which I am quoted as advocating repeated washing out of the stomach for post-diphtheritic vomiting. I wish, even at this late date, to protest against the suggestion that I ever either practised or recommended a proceeding at once so dangerous, so futile, and so utterly at variance with all that I believe to be correct in the treatment of this most interesting condition. If readers who are interested in this subject will refer to my one publication thereon, in the St. Bartholomew's Hospital Reports of 1904, they will see that I regard the symptoms characteristic of what I have called the early post-diphtheritic condition, symptoms not only gastric but cardiac and renal, as dependent primarily on excessive irritability of the bulbar nuclei, to be treated by measures directed to the nervous system alone, and not to the stomach. I consider the vomiting in particular to be purely nervous, produced by any undue stimulation, but with almost absolute certainty by those impulses reaching the medulla from the irritated fauces, and excited by the act of deglutition. I therefore recommend, and practise with success, feeding at long intervals in considerable quantity with a good-sized œsophageal tube, whereby food is only introduced after the effect of the unavoidable stimulus has passed off. With this I combine enemata, and massive doses of belladonna with bromide, strychnine being at this stage sedulously avoided. At the most the stomach may be washed out once only, very cautiously, if it contain much mucus, and as a preliminary to tube feeding. I may add that further experience has fully confirmed my belief in the efficacy of the above methods, as also of the use of vaso-dilators mentioned in my paper for so-called cardiac crises or cardiac paralysis, which I believe to be neither cardiac nor paralysis, but primarily vaso-motor spasm. It happens that I am just preparing a supplementary paper on this subject. I cannot conclude without expressing how much I am indebted to Dr. Bolton for his admirable work on the medulla, work which seems to me to confirm the ideas herein expressed.

I am, Sirs, yours faithfully,

Chichester, Sept. 30th, 1907. G. C. GARRATT.

SOME PHYSIOLOGICAL EFFECTS OF HIGH-FREQUENCY CURRENTS IN DISEASE.

To the Editors of THE LANCET.

SIRS,—In answer to Dr. S. Sloan's letter in your issue of Sept. 28th, p. 920, I regret that he should crave to be exonerated from a self-sought task. Dr. Sloan does not improve his position by a partial re-statement of his case. For him to hold that high-frequency currents cannot be accurately computed and verified by practical tests is sufficient in itself to invalidate his own conclusions.

In the first instance I deemed it prudent to ascertain from him the actual data under which he carried out his experiments, in order that I might show not merely from a theoretical but from a practical standpoint, first that resistance does not cause a fall in the potential of a circuit or annul voltage; secondly, that while experimenting his patients were being subjected to little or no current. I have not dogmatised as Dr. Sloan asserts, and it is merely my sense of modesty which has hitherto restrained and even

now restrains me from stating what may have been the operating causes which produced the physiological effects observed by Dr. Sloan and attributed by him to the influence of high-frequency currents.

I do not concede that the only difference between Dr. Sloan and myself relates to my experiments with a vacuum tube for the production of ultra-violet rays, and I certainly disagree with him when he states in his article that his researches justify him in looking towards the future of electro-therapeutics with more confidence than ever and with the conviction that we are only now on the fringe of great possibilities. I am, Sirs, yours faithfully,

Cardiff, Sept. 30th, 1907. J. CUNNINGHAM BOWIE.

*** This correspondence must now cease.—ED. L.

THE REPORT ON MIDWIVES: A CORRECTION.

To the Editors of THE LANCET.

SIRS,—I am asked by the chairman of the subcommittee of the Association for Promoting the Training and Supply of Midwives, which drew up the report on midwives, published in THE LANCET of July 20th, p. 178, to write to you with reference to an inaccuracy to which his attention has just been directed and which, as it might possibly give rise to some misunderstanding, he much regrets. In the paragraph headed "Number of Midwives Retiring," it is stated that a large majority (the figures being given) of practising midwives in the various counties named had, at the date mentioned, expressed their intention of ceasing to practise. The words should have been, "had sent in no notice of their intention to continue to practise." Will you kindly insert this correction? I am, Sirs, yours faithfully,

Westminster, S.W., Oct. 1st, 1907. R. V. GILL, Secretary.

ETHER INHALATION IN PULMONARY TUBERCULOSIS.

To the Editors of THE LANCET.

SIRS,—Surely Dr. R. H. Hodgson cannot seriously mean what he writes in his letter appearing in your issue of Sept. 28th. He states: "I fully agree that anæsthesia for operations upon phthisical subjects is not desirable ....." Such a statement is so utterly absurd that it would be grossly unfair to phthisical patients if no anæsthetist were to take up the challenge. Patients with even very advanced pulmonary tuberculosis may generally be safely anæsthetised for an operation if due care be given to the choice of drug and the mode of administration. I have little doubt that every anæsthetist will agree with me in saying that chloroform (or a mixture containing it) should be chosen for advanced cases, especially if there be a history of hæmoptysis; but in early and mild cases I frequently administer the ethyl chloride-ether-chloroform sequence, and I have not heard of any harm having been caused thereby. The ether should not be persisted in for too long and cyanosis must be strenuously avoided.

As regards the employment of ether inhalation for the direct treatment of pulmonary tuberculosis I think there is ample room for a diversity of opinions provided its use be limited to early cases, but it seems to me very doubtful whether a patient will be found who will be willing to be fully anæsthetised by ether sufficiently frequently to destroy the bacilli. Possibly the daily etherisation with its attendant vomiting might destroy the patient first.

I am, Sirs, yours faithfully,

ROWLAND W. COLLUM.

New Cavendish-street, W., Oct. 1st, 1907.

EXCISION OF THE PAROTID GLAND WITH PRESERVATION OF THE FACIAL NERVE.

To the Editors of THE LANCET.

SIRS,—I was much interested in Mr. T. Carwardine's paper in THE LANCET of Sept. 28th on Excision of the Parotid Gland with Preservation of the Facial Nerve, as in June, 1906, I had to deal with a similar case to his, and, like him, found that there were no cases recorded in which this procedure had been successfully carried out.

The patient, a lady of about 45 years, consulted me for a small tumour growing in the right parotid gland; on removal this proved to be a carcinoma. I advised the complete removal of the parotid gland, but warned my patient that such an operation might be followed by the complete paralysis of the facial muscles, as judging from all the literature I could obtain the preservation of the facial nerve seemed almost an impossibility. As two lymphatic glands could be felt under the angle of the jaw I tied the external carotid artery high up and cleared away the glands. I hoped by this procedure to render the removal of the parotid gland a comparatively bloodless operation and in doing so facilitate the dissection of the facial nerve. My hopes in this respect were not realised as the bleeding was all through rather free. 40 minutes' careful work sufficed to preserve all the main branches of the nerve and to remove the entire gland. There was almost complete paralysis of the lower half of the face for the first five days, then this rapidly began to disappear, and five weeks after the operation the most careful examination failed to show any difference between the two sides of the face. 15 months have now elapsed since the operation, and as there is no sign of recurrence I hope the patient is cured, as my experience of partial operations on carcinomatous growths in the parotid is most unfavourable, the disease growing again in a very few months in every case.

While I feel that the result in my case of almost immediate restoration of function to the whole facial nerve was too good not to have some element of good fortune in it, yet I think that we are justified in promising a patient that complete removal of the parotid gland can be done and a fair amount of facial movement will remain after such an operation.

I am, Sirs, yours faithfully,

Dublin, Oct. 1st, 1907. LEVESON GOWER GUNN.

TUBERCULIN FOR DIAGNOSIS.

To the Editors of THE LANCET.

SIRS,—Can any of your readers tell me where I can find details (practical details) and results of the method of diagnosis for tuberculous conditions which depends on the local inoculation of tuberculin? The tuberculin is rubbed into a small scarification of the skin and in the tuberculous produces a pustule, &c., and in the non-tuberculous no effect. Can you tell me whether there are any bad symptoms—temperature, lighting up of old disease, &c.? How long do the pustules take to form? and what tuberculin is used? I presume the old tuberculin (original Koch). I have searched but cannot find any details of the method in the literature I have available. Thanking you in anticipation,

I am, Sirs, yours faithfully,

Hull, Sept. 25th, 1907. EDWARD TURTON.

THE WORKMEN'S COMPENSATION ACT, 1906.

To the Editors of THE LANCET.

SIRS,—Although the medical man who has expressed an opinion upon the condition of an injured workman and who finds that his opinion is to be submitted to a medical referee may reasonably feel that he ought to be present when the medical referee examines the patient, in order to call attention to the symptoms upon which he has based his views, and to give reasons for his conclusions, it seems difficult to say with confidence that the regulations which your correspondent approves will bear the interpretation that this procedure is contemplated by the Home Office. There is a side to the question which cannot be ignored and on which you touch in your leading article. The Workmen's Compensation Acts have been framed with a view to providing for the workman during incapacity through accidental injuries as cheaply and as expeditiously as possible. They may not be altogether successful in doing so, but at all events they are not intended to place the employed at any disadvantage when claiming against his employer, or to favour the longest purse. In many trades or industries the injured workman belongs, almost without exception, to an organisation which can pay for the attendance of his medical man before the official referee, but the latest Act includes practically every class of employment and a vast number of workers who, at present at all events, will have to fight their claims, if contested, for themselves. There is also the point of view of the medical referee who, while desiring to extend every courtesy to the members of his profession, and to weigh their opinions

with care, at the same time may prefer to check personally and without assistance or interference matters of observation recorded by others and submitted to him in writing. The ordinary consultation between two or more medical men over a private patient is a different matter from the examination by a medical referee of a case upon which two or more medical men have expressed divergent opinions, which examination, it is suggested, is now to be made in their presence, and during which, presumably, their conflicting views are to be listened to and considered. And the regulations themselves must be consulted in order to ascertain what they order or permit; wherefore I am glad to see you have printed certain sections in question in full. Their phraseology, though legal, is simple. They provide for the filing of documents, such as the certificate of the certifying surgeon, and of any available report or reports of any medical practitioner or practitioners by whom the workman has been examined, together with copies for the use of the medical referee. They provide for the attendance of the workman and of the employer if he is the appellant, or of a person duly authorised by him, and it is possible that a medical man might thus be "duly authorised," although I do not think this is the intention of the rule any more than you yourselves do. There is no direct permission or order to admit medical men to be present when the medical referee has the case presented to him. There is, however, the rule from which apparently your correspondent draws the inference upon which I have commented and which you have already quoted in full on p. 906. I repeat it:—

R. 15.—Except as otherwise provided by Regulation 14, the medical referee shall, before deciding on the matter referred to him, make a personal examination of the workman, and shall consider any statements made or submitted by either party.

Without expressing a positive opinion upon such a subject, I am inclined to doubt the interpretation being correct that "a statement submitted" by one of the parties to an inquiry before a medical referee covers the introduction of a medical practitioner on behalf of the party in question, necessarily and apart from any discretion exercised by the medical referee. The point is an interesting one.

I am, Sirs, yours faithfully,

Sept. 27th, 1907. MIDDLE TEMPLE.

BEES' STINGS AND RHEUMATISM.

To the Editors of THE LANCET.

SIRS,—In reply to Dr. E. W. Ainley-Walker's letter in THE LANCET of June 22nd, p. 1737, an interesting review of the history and literature of formic acid will be found in Dr. Heinrich Stern's paper on "Sixteen Years' Experience with Formic Acid as a Therapeutic Agent," in the *Journal of the American Medical Association* of April 28th, 1906, p. 1258. Dr. Stern states that when formic acid is "applied to a paralysed limb or to a rheumatic joint its beneficial influence is solely due to its power of exciting the circulation and setting up a somewhat enduring counter-irritation." Several cases of arthritis deformans, lumbago, and acute sciatic rheumatism are described by Dr. L. B. Couch in the *Medical Record* (New York) of June 24th, 1905, p. 972, full details being given as to the symptoms, treatment, and results. As regards bees' stings, Dr. Couch heard of a bee-farmer in Long Island who had been speedily cured of chronic rheumatism by being stung by his honey-bees. He wrote to the farmer for corroboration and was informed that the story was true. Dr. Ainley-Walker will probably have no difficulty in collecting clinical evidence from the medical literature as to the value of formic acid in rheumatism, though authentic records of the efficacy of bees' stings are less easily obtained.

I am, Sirs, yours faithfully,

Baltimore. HESPERUS.

UNIVERSITY COLLEGE HOSPITAL MEDICAL SOCIETY.—Professor William Osler, F.R.S., will give an address on "The Influence of the Medical Society on the Education of the Medical Student" on the occasion of the society's first meeting for the winter session. The meeting will be held on Wednesday evening, Oct. 16th, at 8.30, in the new school buildings, Gower-street, and the chair will be taken by Sir Thomas Barlow. Students from other hospitals and old University College Hospital men are invited to attend.

NOTES UPON HEALTH RESORTS.

JAMAICA AS A HEALTH RESORT.

(BY OUR SPECIAL COMMISSIONER.)

I.

THE invalid in search of health, no less than the tourist in search of pleasure, is enabled to go further and further afield with less and less inconvenience as the facilities for travel and the comfort of living increase in different parts of the world. It is scarcely 20 years since our own south-coast watering places served as winter quarters for all but the very wealthy amongst those unable or unwilling to face the rigours of an English winter in their own homes. At that time the Mediterranean Riviera was the health resort of but a few fortunate ones; the last two decades, however, have brought a winter in the south of Europe within the means of a much larger class, although the expenses of living are still very heavy at Mentone, Hyères, Beaulieu, and the like. It has also been found by experience that the variability of climate in the Riviera at times renders the winter pilgrimage anything but a successful quest, and many of its former visitors have been constrained to seek the dry air and sunshine of Egypt in the winter months or even to travel into the desert itself and to take up their quarters in some such remote station as Biskhara. It is the object of the present articles to bring to notice the claims of an ancient British possession, lying in one of the earth's most beautiful regions, as a wintering place where a splendid and even climate combines with surroundings of the greatest natural beauty to afford a wintering place such as in many ways Europe cannot match. Your commissioner cannot of course claim to have discovered the island of Jamaica either geographically or from the valetudinarian's point of view. The beauties of Jamaica have been revealed by many pens. I must necessarily traverse old ground in some directions, but in others I venture to hope that much new information will be found in this series of articles illustrative of the powerful claim of Jamaica to be regarded by medical men and their patients as a most valuable possession of the Crown.

It is certain that the name of Jamaica will summon up a vivid recollection of the terrible scenes of the great earthquake which well-nigh destroyed Kingston, its capital, in January last; and many may be inclined to harbour a hopeless prejudice against the island on this account. The island, situated in the Caribbean Sea, is undoubtedly in the earthquake zone, as witness the fact that a like great catastrophe occurred on it in 1692; but this very fact shows that over 200 years have passed since the occurrence of an earthquake of any consequence, and in the history of the world it is an unheard-of event for two disturbances of any magnitude to occur at adjacent dates in the same area. It is the opinion of genuine seismological authorities that there is no likelihood of a recurrence of the catastrophe within any date of actual concern to the invalids of to-day, their friends, or their medical advisers. Arguing from similar events elsewhere it is improbable in the extreme that the re-arisen San Francisco will lack for inhabitants and the periodical activity of Vesuvius has not succeeded in lessening the attractions of the Bay of Naples. The recent disaster in Jamaica has not resulted in any diminution of American visitors to the island, and when British interest and enterprise have helped it to its proper position as a health resort the difficulty may be one of overcrowding from the neighbouring republic. The island possesses mineral springs of high repute in gouty and rheumatic conditions, and the sanatoriums of the Black Forest, for example, can afford no such air and scenery to the consumptive as the hill stations in our West Indian possession.

The Voyage.

Before beginning to describe Jamaica a few words may well be spent on the method of reaching it, for the nervous invalid may well feel doubtful as to the wisdom of undertaking a 5000-mile voyage. But this voyage forms one of the most delightful and restful holidays that ocean life can offer, and to the jaded or debilitated convalescent the 13 days of ocean air afford a splendid restorative. The voyage is extremely safe, for the course taken is a little-frequented highway of the sea; indeed, a week is often spent with no sight of a passing ship. Rough weather may certainly be

met with during the first few days out and towards the end of the voyage, but it is amply compensated for well within a week from home, and the traveller who has left behind a bleak and cheerless December landscape finds himself within five days amidst the splendours of the South Atlantic with such a prospect of brilliant azure shadowed with purple as the deep ocean can alone afford. Your Commissioner travelled by the Elder Dempster Imperial Direct West Indian Service on board the R.M.S. *Port Royal*. The journey from Paddington was made by special coach which was separated from the express train at Bristol and ran alongside the dock at Avonmouth; the luggage was conveyed on board without trouble to the passenger who had seen it into the train at Paddington. The *Port Royal* is not the biggest boat on the line but she has a good saloon and deck accommodation, and the state-rooms are capital. The invalid will do well to secure, if possible, a cabin on the saloon (or upper) deck; it is well worth the extra expense as on the main deck the port-holes have to be closed when the sea is running and the cabin may become uncomfortably hot. If the traveller is so fortunate as to secure a single state-room he will have as comfortable a little home as may be wished for; but this is a case of the power of the purse. We had a smooth enough run on the whole, only meeting any weather to speak of after we were down to the tropics, by which time most of the travellers had developed their sea-legs and trained their stomachs sufficiently to enjoy their environment. Our journey was made very pleasant by the goodwill of the officers, and an energetic entertainment committee organised the usual routine of deck sports—cricket, concerts, and the many other diversions which serve to afford amusement even to those who prefer to look on at them. Indeed, lying in a deck chair and restfully watching the waves is as good a method of restoring a neurasthenic or similar invalid to his proper share of nervous energy as may well be imagined; and the improved condition of certain of our own passengers at the end of the trip gives me warrant for repeating this therapeutic truism. My impression is that no more delightful ocean journey can be taken than the voyage to Jamaica: its route to the south-west, its length of about a fortnight, and the advantages of the boats which serve it will combine to plead strongly in its favour.

Kingston: The Constant Spring Hotel.

The last week of the trip afforded such a succession of sunrises and sunsets as can only be seen in tropical skies; and the approach to Kingston Harbour in the early morning, with the boat running along the magnificent range of Blue Mountains, capped with a splendid cloud-range, with the Port Royal peninsula, once one of the world's treasure-houses, lying palm-fringed in the sea, gives such a promise of glorious scenery as could not fail to make the traveller eager to get into the country as soon as possible.

I had little trouble at the Customs House, which shows considerable lenience to tourists, demanding as a rule the opening of but one bag. The luggage is met at the boat by the porter of the Constant Spring Hotel where any visitor to Kingston will almost certainly put up. The rooms are comfortable and built suitably for the climate and it stands six miles out behind the town at the foot of the Blue Mountain range. There is an excellent service of electric cars to its gates or it may be reached by one of the many buggies which ply for hire from Kingston. The town itself at present is a melancholy spectacle, only a few stores and shops having arisen from its ruins. In this month of September it is intolerably hot, although a sea-breeze comes in at mid-day and blows until evening. Up at Constant Spring the air is much more pleasant, and there can be no doubt that it is a healthier place for the tourist to reside in; it is quite away from any crowded negro settlement, the drinking-water is all boiled before use, the milk is obtained from known and trustworthy sources, and the sanitary arrangements appear to be quite satisfactory. There is also an excellent swimming-bath, which is a great boon, and tennis-courts and golf-course with a stable of riding ponies afford excellent opportunities for exercise in the mornings and evenings. During the first few days of my stay I have been gathering information for a few notes about the general climatology of the island and I propose first to deal with this matter. I shall in future articles describe the salient points of a fortnight's tour in Jamaica made in order to observe it from the point of view of a health and pleasure seeker, and very kindly planned for me by Mr. A. E. Haggart, Messrs. Elder Dempster and Co.'s Kingston agent, and the Hon. Mr. J. Errington Ker, island medical officer, to whose courtesy and hospitality I am pleased to acknowledge my obligation.

The Geography and Climate of Jamaica.

There is a legend to the effect that when Columbus was asked by his Queen for a description of Jamaica he crumpled up a piece of paper and placed it in front of her, and such a device would supply a fair contour map of the island. It is very mountainous, the chief ranges being the Blue Mountains and John Crow Mountains in the east, from both of which run many subordinate but fine ridges forming a perfect meshwork of mountains and valleys, and the Santa Cruz mountain in the south-west of the islands. As will be presently told, the climate of the middle and upper level of these ranges is well-nigh perfect. There are many streams running down the mountain gullies to the plain land, and after the rainy seasons these are in spate, although at present the beds of many are nearly dry owing to the fact that the spring rains did not come this year—indeed, the drought has been a very serious matter in many of the country districts. These mountain streams afford the water-supply of the towns, and although some of them undoubtedly receive contamination from primitive sewerage methods in mountain villages they are well oxygenated in their course over the boulders lower down. Excellent official reports are published giving statistical information concerning the climatology of Jamaica, and the chief points may be found readily in a useful handbook published by the Institute of Jamaica and written by Mr. Frank Cundell, F.S.A., its secretary and librarian. I quote from his pages. "The foundation of the island is composed of igneous and metamorphic rocks, overlying which are several distinct formations—white and yellow limestones and carbonaceous shales, some mineral-bearing. The eastern side of Jamaica is much more elevated than the other portions and has a different formation; coral and yellow limestones blending with the coast limestones. ..... There are two principal rainy seasons—namely, in May and October, but there is usually more or less rain all through the summer months. In the winter months near Kingston it is light. The rain usually comes in heavy showers of only a few hours' duration and the days during which the sun does not shine at all are very rare. It is almost always possible to predict when the rain is coming. This is fortunate for visitors, as a wetting must be avoided in the tropics" (a useful warning to English people who are accustomed to disregard rain and might even welcome a soaking in a hot climate). "It should be added that at the same temperature there is nearly always far more moisture in the air of Jamaica than in higher latitudes, and the direct heat of the sun is felt less than it is at the same temperatures in London: sunstroke is accordingly practically unknown in Jamaica. The climatic characteristics of any particular district or altitude are peculiarly constant, the changes from season to season being gradual and very moderate. Broadly speaking, fine cloudless mornings, chequered cloud at noon, fine sunny evenings, and bright

TABLE I.—*Summary of the Kingston Monthly Temperatures, 1881–1898.*

Month.	Mean.	7 A.M.	3 P.M.	Maximum.	Minimum.	Average highest maximum.	Average lowest minimum.
	Deg.	Deg.	Deg.	Deg	Deg.	Deg.	Deg.
January	75·8	68·9	83·1	86·1	67·0	90·1	62·8
February	75·7	69 4	82·7	85·6	67·0	89·3	63·2
March	76·4	71·3	82·8	85·6	67·8	89·3	63·9
April	78·2	74·9	83·3	86·3	70·0	90·1	66·6
May	79·9	78·1	83·7	87·0	72·5	90 2	68·9
June	81·1	79·1	85·2	88·2	73·7	91·8	70·4
July	81·6	78·7	86·4	89·5	73·4	93·4	70·4
August	81·0	77·6	85·7	89·5	73·4	92·6	70·2
September	80·7	76·9	85·2	89·2	73·5	92·3	70·7
October	79·3	75·6	84·5	88·0	72·4	91·8	68·8
November	78·6	73·4	84·3	87·9	70·7	91·1	66·6
December	76·9	70·7	83·3	86·7	68·4	90·5	63·7
Means, 18 years' observations	78·8	74·6	84·2	87·5	70·8	91·0	67·2

nights constitute the daily weather with singular regularity all the year round, interrupted only by the rainy seasons. The regular 'rains' are heavy tropical downpours, with fine bright intervals, and are rarely so continuous as to prevent one from taking daily outdoor exercise."

Since landing on the island, although the sun-heat in Kingston has been intense, I have always seen fine cumulus clouds in the sky, which is infinitely more pleasant to the eye than are the metallic skies of the East. September is an unfortunate month from which to judge the temperature, but the following table taken from the official handbook on the meteorology of Jamaica will show that on the higher levels of the island a beautifully even and pleasant temperature prevails.

TABLE II.—*Average Annual Temperatures at Different Elevations in Jamaica.*

Elevation above sea-level.	Mean.	Maximum.	Minimum.	Range.
Feet.	Deg.	Deg.	Deg.	Deg.
0	78·8	87·5	70·8	16·7
500	77·1	85·1	69·8	15·3
1000	75·3	82·8	68·6	14·2
1500	73·6	80·6	67·4	13·2
2000	72·0	78·6	66·1	12·5
2500	70·3	76·7	64·7	12·0
3000	68·7	74·9	63·3	11·6
3500	67·1	73·2	61·7	11·5
4000	65·5	71·6	60·1	11·5
4500	64·0	70·1	58·5	11·6
5000	62·4	68·8	56·8	12·0
5500	61·0	67·5	55·0	12·5
6000	59·5	66·3	53·1	13·2
6500	58·0	65·2	51·2	14·0
7000	56·5	64·3	49·3	15·0
7500	55·1	63·6	47·3	16·3

Even in this month the prevailing winds greatly modify the heat, as the sea-breeze sets in very regularly about 10 A.M. from the south-south-east on the south side of the island and from the north-east on the north side, and as soon as it dies down about 5 P.M. the land breeze sets in from the hills. The winter visitor need feel no alarm at stories of devastating hurricanes as these have always occurred in the summer months, generally in August.

The official returns of the mean rainfall in recent years are as follows :—

TABLE III.—*The Jamaica Monthly Rainfall.*

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
1890 ...	5·21	2·92	5·84	3·37	5·57	4·13	4·99	6·92	6·52	7·04	6·52	5·39	64·42
1891 ...	3·45	2·24	0·84	8·49	12·28	9·91	5·57	7·45	6·35	15·32	7·65	5·15	84·70
1892 ...	4·00	1·38	2·27	2·82	8·53	7·31	4·44	7·65	8·86	12·17	9·96	3·61	73·00
1893 ...	3·44	3·24	1·92	5·42	10·90	7·20	9·15	6·72	7·92	10·30	10·13	10·18	86·49
1894 ...	2·05	2·52	3·33	5·84	16·64	3·90	5·92	4·20	6·98	12·40	5·05	6·56	75·39
1895 ...	1·31	5·00	2·18	6·11	9·90	3·66	4·99	8·11	6·87	11·98	7·72	3·79	71·62
1896 ...	5·25	4·86	4·28	3·67	9·96	4·84	5·03	4·74	8·24	7·51	4·57	5·66	68·61
1897 ...	0·88	0·77	1·82	7·06	10·91	4·92	5·92	6·55	10·13	19·26	5·73	3·64	77·59
1898 ...	1·75	3·93	1·26	4·09	16·76	7·60	6·50	6·92	7·10	10·38	4·78	2·75	73·82
1899 ...	3·96	2·84	3·76	4·80	4·20	4·66	3·86	4·22	7·44	23·72	14·99	7·37	85·82
Means..	3·13	2·97	2·75	5·17	10·56	5·81	5·64	6·35	7·64	13·01	7·71	5·41	76·15
1900 ...	5·20	4·15	2·42	5·67	7·77	6·16	7·18	5·38	8·12	6·50	5·22	5·88	69·65
1901 ...	3·91	1·17	3·32	2·57	6·13	14·03	7·59	6·49	10·60	9·76	10·02	5·37	80·96
1902 ...	5·68	3·06	4·24	5·40	8·97	10·28	3·44	5·39	5·89	7·19	5·60	8·23	73·37
1903 ...	1·94	1·40	3·19	4·90	10·63	6·00	4·30	12·79	5·34	7·28	5·75	4·83	68·38

These notes will suffice to give a general idea of the climate of the island.

Kingston, Sept. 9th.

(To be continued.)

FOURTEENTH INTERNATIONAL CONGRESS OF HYGIENE AND DEMOGRAPHY.

(FROM OUR SPECIAL SANITARY COMMISSIONER.)

Berlin, Sept. 27th.

RECEPTION BY THE MUNICIPALITY.

ON the Monday after the solemn opening ceremony at the New Opera House and the inauguration of the Exhibition of Hygiene at the Reichstag, already described, the members of the Congress were allowed a little time to themselves. In the evening there was no general entertainment but there were many private dinner parties. One of the most brilliant of these was the dinner given by Professor O. Lassar at his beautiful house in the Tiergartenstrasse. It was a truly international gathering, Professor Lassar illustrating the fact by making a speech in which he inextricably mixed three languages, to the amusement of his guests, while a string band played a mixture of popular tunes of all nationalities.

On Tuesday the sections got to work in the morning, while the afternoon was spent in visiting various establishments and institutions. In the evening the town of Berlin entertained more than 500 members of the Congress at the Town Hall. As a rule, on such occasions there are buffets where light refreshments are served to those who have the patience to wait or the muscular force to push their way through the crowd and to get within reach of a waiter. In such circumstances the more prudent take a meal quietly at their hotel before attending. Such methods, however, do not suit the sturdy burghers of Berlin. No light refreshment bars find favour here but good solid tables with heavy wooden chairs around and big salmon and huge joints of meat weighing heavily on the table. "Quantity and substance" was the motto, and certainly no one need have gone hungry away. All sat down and for some time with much food in front, while waiters from behind replenished the glasses. Considering that this only began at nine in the evening, when most persons are supposed to have finished eating for the day, this copious repast came as a surprise to many of the foreigners present. It was all the more surprising as the Congress dinner, which was to take place on the following day, was fixed at five in the afternoon. Of course to many this latter hour seemed too late for a midday meal and too early for an evening meal, but then the constant occurrence of the unexpected is one of the charms of international congresses. Now, at the town hall, so that everyone might sit down, tables had to be laid in nearly all the reception rooms, but of course the speeches could only take place in one room. Those who sat in the many other rooms were made aware that a speech was about to be delivered because a municipal functionary sounded a bugle but the bugle call was all that was ever heard of the speech. Consequently the speeches did not interfere much with the merry ripple of conversation prevailing round most of the tables and doubtless this largely contributed to the pleasantness of the evening. It was an excellent opportunity of meeting old friends and making new ones, and most persons present were cheered by these renewals of acquaintanceship and were grateful to the town of Berlin for its hospitality.

Wednesday was the day for the great subscription banquet in the Blue Hall of the Berlin Exhibition of Fine Arts. Here an extraordinary confusion arose which threw an altogether unmerited damper upon the invitation. The printed instructions stated that the dinner cost 12 marks but no wines were included, so that no one really knew what the expenditure would be. Some members, not feeling disposed to spend an unknown sum, did not attend. On entering we were presented with a pamphlet stating that a small glass of champagne was offered with the soup and included in the price of the dinner; that we were to pay for our wine only to a waiter with a metal number; also we were carefully informed that we need not give a fee for depositing our coats and hats. Then, again, we were told that coffee and lemonade would be served gratuitously in the garden after the dinner. Evidently our 12 marks were to include many more things than had been expected. But now came the *menu*, and with every course a special choice wine was mentioned, while on the table there were uncorked bottles of ordinary wines and mineral waters. It seemed, therefore, as if we should not have the option of choosing our wines but would have to drink according to the *menu*, which would

just about double the cost of the dinner. Needless to say that some of the members present did not relish this appearance of compulsion. Now, all this was a complete mistake. As a matter of fact, no one was charged anything whatsoever. The 12 marks covered the whole cost and it is inexplicable that this was not stated from the first. The dinner, far from being dear, was extraordinarily cheap and admirably prepared; indeed, it was so satisfactory that I made a point of inquiring who was the *chef*. To my surprise I found he was not a Frenchman but a Prussian who had not travelled but learnt in Berlin from the International School of Cookery. Herr Banhoff—for this I am told is his name—has acquitted himself well and proved an apt pupil in imitating what he saw French cooks do in the great kitchens of Berlin. The speeches, I fear, were not so well prepared as the dishes for our great Congress banquet. There was the usual run of platitudes; fortunately, they did not last very long. Officialdom does much to spoil such gatherings. Preference is, of course, shown to the official representatives of Governments, and just because they do represent a Government they must not, they dare not, venture to say anything except the most orthodox of orthodox platitudes. Consequently those who have to exercise their patience in listening fail to learn anything. In the olden days, when Governments did not think it worth while to send official representatives to these congresses, we had much better speeches. There were the enthusiasm and the eloquence of the apostles of a noble cause, and the memory of these great orators makes it difficult to listen patiently to the dry sentences and prudent reserve of diplomats whose one object is not to compromise themselves in any way whatsoever. But it must not be thought that these remarks apply to any speaker or speakers who attended this banquet; they apply in a general way to the leading gatherings and are symptomatic of the evolution in the history of these congresses. The banquet itself was a great success and a source of enjoyment to all present.

On the Thursday evening there were gala representations at the theatres, though, of course, that of the Grand Opera was the most important. The opera house is an old and unpretending building but much larger than the New Opera House where the opening ceremony of the Congress took place. Nevertheless, it looked very brilliant and imposing when filled with people and well lighted. On this occasion the ladies present did "dress" and this fact proves that the Berlin ladies really did "strike" against the custom of wearing evening and ballroom attire in the early morning. Their appearance in the evening at the opera was very different to what it had been at the opening ceremony on Monday morning. The men on that occasion put on their evening dress in the morning before they took their coffee, but the "feeble sex" somehow had the strength of mind not to conform to this inconsistent fashion. So on Thursday evening the auditorium was much more elegant and cheerful than on Monday morning so far as the dresses worn contributed to enliven the scene. But when the opera began we saw nothing of this as no lights are then allowed except on the stage. *Tannhäuser* was the opera given and it would be difficult to criticise the performance so perfect did it seem in every detail. Tannhäuser was rendered by Kraus and Elizabeth by Krull, who had come from Leipsic on purpose to appear before the members of the Congress. The very difficult and ungrateful part of Venus was powerfully rendered by Plaichinger. As wonderful as the singing were the stage appointments. The scenery was exquisite and life-like and there was a long succession of perfect *tableaux vivants* illustrating all that is dignified and picturesque in the life of the old barons during the feudal system. This performance will not be readily forgotten and the members of the Congress will remember with gratitude the opportunity which they have enjoyed of rendering homage to the accomplished singers and musicians of Germany.

THE SECTIONS.

FIRST MEETING IN THE REICHSTAG.

Disease and Accidents on the Railways.

It was not till the Tuesday morning that the various sections got to work. They filled the larger committee rooms of the Reichstag and one section dealing with the sanitation of railway and transport services generally sat in the Reichstag itself. In spite of the immense size of this noble assembly hall, the attendants of the sections made a fair show as they spread over the seats that are generally occupied by the members of the German Imperial Parliament. It must at once be acknowledged that the sections are well attended. Some, indeed, are uncomfortably overcrowded. In this the Congress of Hygiene contrasts favourably with the medical congresses where it is very difficult to persuade the majority of members to attend any section meeting whatsoever. When I entered the Reichstag a lady occupied the tribune and was reading in French a paper relating to the health of railway servants. That the French language should fill the place of honour in the German Reichstag only shows what science and international congresses can do to efface the traces of former wars and disputes. In concluding her speech this lady insisted that nervous diseases afflicted more especially the engineers and firemen. There was no special disease caused by railway service but some of the ordinary diseases were more prevalent among those engaged in this work. Some of these cases of sickness might be prevented. Better food and meals at regular hours were needed; also the work of railway servants required to be organised more wisely rather than reduced in amount. A speaker had insisted on keeping a fuller and more systematic record of the illnesses. This would facilitate the early detection of tuberculosis when it had been proved to be quite curable. Also much evil would be prevented if greater care was shown in watching and attending to the earliest symptoms of hysteria, neurasthenia, rheumatism, and dyspepsia.

Dr. LÉBIENNE followed and spoke on behalf of Dr. C. PERIER who represented the medical department of the Great Northern Railway of France. He also insisted on the necessity of better statistics. General statistics did not suffice; the details were more useful. Also there must be a uniform and international basis for such statistics so that they may be compared one with another. The statistics as to accidents were not so important. There is a great element of hazard in regard to accidents. In any case it was not medical men or sanitary reformers who could take any direct measure to prevent accidents. The engineers and railway managers could prevent accidents by controlling the traffic and watching over the soundness of the rolling-stock. The medical man could only testify as to the gravity of the accident after it had occurred and then see that the patients were properly treated. He might influence the relative mortality but he could not limit the number of accidents. The speaker agreed that there was no special railway disease unless it be in the tube or underground metropolitan railways. He found that tuberculosis was not so prevalent among railway servants, probably because they had so much outdoor exercise.

Dr. LUDWIG VON CSATÁRY, medical inspector of the Hungarian railways, is a popular figure at these congresses. No one who was present will forget the way in which he organised the excursion to Constantinople when the Congress met at Budapest. He sent a paper on the above question to Berlin, though as yet I have not seen him personally. However, his paper is printed and he also agrees that there are no special diseases due to railway service. But here and there the prevalence of insanitary conditions produces the usual evil consequences. He therefore urges that all the rules in regard to the hours and conditions of labour should be carefully revised so that they should not be in conflict with the laws of health. At the same time it is necessary to see that the workers are well fed and housed and not overworked.

Dr. PLACZEK (Berlin) insisted on the dangers to which the public are exposed by the prevalence of nervous diseases among railway servants. He maintained that Prussian statistics, which only deal with patients admitted into asylums, show that there is excessive prevalence of mental disease among railway servants. But there is far more illness than these figures set forth, as many of the patients are not sent to the asylums. Then there is a tendency to various forms of paralysis accompanied by a want of cohesion in ideas, a failing of memory, and the power of observation and judgment, all of these being conditions well calculated to bring about railway accidents. It is therefore necessary to watch for the earliest symptoms of these diseases. If a railway servant shows signs of being anxious, if he is easily tired, if he is lacking in resolution, if he is prone to create imaginary trouble or anxiety, if he lacks in spontaneity in thought or action, he is not fit for a responsible position on a railway. It is necessary to watch the psychic as well as the bodily

conditions. The former are quite as important. New rules bearing on this were presented in April last year to the committee of the German medical practitioners engaged on the railway service and suggestions were made to establish better prophylactic measures in regard to disorders of the nervous system.

Dr. GEORG HERZFELD (Berlin), who is medical officer of the Halle railway, is also much concerned in the question of food for both railway passengers and railway servants. It is, he insists, very necessary that all travellers should be substantially fed. Wherever they might be working arrangements should be made that all railway servants should be served with a good, warm, carefully prepared meal in the middle of the day and allowed leisure to eat it. The traveller in the dining-car must on his side complain if his food is not perfectly fresh and wholesome. The railway administrations must see to it that their servants as well as their passengers are well fed. This is one of the surest ways of preventing diseases and railway accidents.

Dr. STICH, Privy Councillor of Nuremberg, said that in regard to accidents Germany is especially favoured but that there is much room yet for improvement in sanitation. The statistics relating to accidents on the Bavarian State railways now extend over a period of 25 years so far as the employees are concerned. These show that many accidents could be prevented by introducing automatic couplings, abolishing all level crossings, by better food, and the prohibition of alcohol and of smoking when on service. And, last of all, Dr. Stich suggested that the health of the railway servants would improve and the danger of accidents decrease if some of the passengers were better behaved and less troublesome.

Etiology of Tuberculosis.

On Tuesday the whole sitting of Section I. was devoted to a discussion on the Etiology of Tuberculosis.

Professor ARLOING (Lyons) discussed the question of the variability of the tubercle bacillus and stated that the more he studied the matter the more convinced he became that the bacillus of the disease in different species of animals is a single species, and that the various types that have been described are but temporary varieties or races, the apparent fixity of which does not survive the conditions of the surroundings in which they are found. He concluded (1) that the various types are rarely sharply defined; (2) that there is an infinite series of gradations between the various types; (3) that variability suffices to explain the usual characteristics of the tuberculosis of mammals and of birds; and (4) that it would be dangerous to lay down any principles of prophylaxis based on an assumption of the difference between the various types of tubercle bacilli in different animals.

Dr. RAVENEL (Philadelphia) discussed infection in tuberculosis by the alimentary tract. From a survey of the facts he concluded that the alimentary tract is a frequent portal of entry for the tubercle bacillus, which is able to pass through the intact mucous membrane, principally during the digestion of fats, without producing a lesion. This mode of infection is particularly frequent in children, tuberculous milk being the source of infection in many instances. Other modes of infection, e.g., by kissing, injury, &c., occur, but they play an insignificant part in the communication of infection.

Professor FLÜGGE (Breslau) emphasised the danger of tuberculous infection by inhalation. An extensive source of infection occurs with the droplets of expectoration loaded with tubercle bacilli coughed out by tuberculous patients. Experiments showed that pulmonary tuberculosis can be induced in a number of animals by inhalation, and although in these experiments some of the bacilli are swallowed, it was shown that the number of bacilli required to produce infection by ingestion is millions of times greater than that required to produce infection by inhalation. Professor Flügge holds, therefore, that inhalation is by far the most dangerous and usual mode of infection in tuberculosis.

Professor RIBBERT (Bonn) dealt with the etiology of tuberculosis from the data obtained post mortem. In by far the largest number of cases tuberculous lesions are localised in the bronchial glands and lungs. He considered that this can only be explained by aerogenous infection and does not regard intestinal infection as playing any great part.

Professor VON SCHRÖTTER (Vienna), from clinical observations, also regarded the lungs as being most frequently affected and the primary portals of entrance of the bacillus.

Dr. CALMETTE (Lille) spoke of the care of tuberculous patients and prevention of infection. His view was that infection takes place almost entirely by ingestion, either of tuberculous milk or of the bacilli in sputum droplets, infection by inhalation of such droplets being much rarer and dry dust containing bacilli being of no importance. As regards combating the disease, the principal end to be attained is the removal of sources of infection.

Professor BAGINSKY (Berlin), Professor MÖLLER, Professor ALBRECHT (Frankfort), Professor COURMONT (Lyons), and others took part in the discussion.

Another important discussion was on

Modern Methods of Immunisation.

Professor WASSERMANN (Berlin) spoke on the theory of immunity and methods for producing active immunity and the rôle of the latter in combating typhoid fever, tuberculosis, and syphilis.

Dr. BORDET (Brussels) considered the principles of active immunisation. In theory immunisation by means of an attenuated virus is the best, but it is only practicable in certain instances. Much importance must also be attached to endotoxins as means for immunising. As to the substances known as aggressins, their importance as special matters different from microbic products formerly known had been exaggerated. Many microbes—e.g., the anthrax bacillus and the streptococcus—owe their virulence to a peculiarity which they possess of surrounding themselves with a sheath which protects them from phagocytosis.

The Typhoid Bacilli.

The discussion in Section I. on Wednesday, Sept. 25th, relating to the Bacilli of the Typhoid Group, attracted considerable attention. Professor LÖFFLER (Greifswald) dealt with the classification of the typhoid-like bacilli, which on the basis of their chemical and biological properties he divided into three groups and considered their isolation and differentiation by means of malachite green media. Dr. LENTZ (Berlin) emphasised the necessity for distinguishing between typhoid and paratyphoid fevers, which could only be done by bacteriological investigation, since the two diseases presented so many clinical features in common. From the epidemological standpoint mild attacks of these diseases, in many instances amounting merely to slight indisposition, were of importance since the causative organisms were excreted in the urine, often for long periods, and hence the disease might be widely disseminated. It would seem, too, that the bacillus enteritidis of Flügge-Kaensche was identical with bacilli of the hog-cholera group, and bacilli of the Gärtner group occurring in man were identical with bacilli of rat diseases—e.g., the Danysz bacillus—thus connecting diseases of man with those of the lower animals. Professor COURMONT (Lyons) stated that paratyphoid fever was very rare in France. For the certain diagnosis of the disease blood-cultivation methods must be employed, the agglutination reaction being insufficient. Professor VAUGHAN (Michigan) referred to his researches on the toxins and non-toxic substances of the typhoid and colon bacillary cells and their immunising properties. Professor ALMQUIST (Stockholm) discussed Koch's methods of combating typhoid fever and considered that travelling laboratories, which could be sent to a district threatened with an outbreak of typhoid fever, were essential.

The sitting in Section I. on Thursday afternoon was devoted to a discussion on

The Meningococcus and Allied Organisms.

Professor GHON (Vienna) in the opening paper regarded the diplococcus intracellularis meningitidis as being an organism belonging to the group micrococcus and the exclusive pathogenic agent of a peculiar form of meningitis, the cerebro-spinal fever, which occurred both sporadically and epidemically. The characters of the organism varied only within narrow limits and no marked mutations occurred. The portal of entry into the human body was probably usually by the nasal cavities and it might produce local inflammation here, in the ear, or be carried to the meninges. Among the species allied to the Weichselbaum coccus of meningitis they knew of two which were possessed of pathogenic qualities for man. These were the micrococcus gonorrhœæ (Neisser) and the micrococcus catarrhalis (Pfeiffer). Of the non-pathogenic allied species, the number of which seemed to be large, many lived as saprophytes on various mucous membranes of the human organism, especially upon the mucous membranes of the upper respiratory tract. They also merited some consideration in this case because they must be taken into account for the differential diagnosis, when the existence of the Weichselbaum coccus of meningitis was being determined. The differentiation between the Weichselbaum coccus

of meningitis and allied species and between these latter among one other was impossible, if only the morphological and staining characteristics and the behaviour towards certain cells of the body (intracellular position) were taken into account; but it was more or less easily and rapidly possible by considering the biological behaviour of the isolated organisms.

Plague.

Section V., sitting jointly with Section VII., considered the question of Plague. Professor GAFFKY (Berlin) described the methods of spread of the disease and its control. Dr. J. ASHBURTON THOMPSON (Sydney) thought that the flea was undoubtedly the carrier of plague from the rat to man. Professor KOSSEL (Giessen) believed that in German ports there was clear evidence of the spread of plague by the Mus rattus on shipboard. Dr. GIEMSA (Hamburg) urged that in order to prevent the spread of plague all ships which had had cases of plague on board or had loaded at plague-infected ports must be freed of the rats infesting them. At Hamburg for this purpose they used a gas generator which generated a mixture of carbonic oxide (5 per cent.), carbonic acid (18 per cent.), and nitrogen (77 per cent.) gases, and this was fatal to all rats and had the advantage of being non-explosive. He maintained that this was superior to carbonic acid gas, sulphurous acid gas, and the gas evolved by the Clayton process.

The subject of

The Control of Typhoid Fever

gave rise to a prolonged discussion in Section V. Professor FROSCH (Berlin) described the principles inaugurated by Koch for combating this disease and considered school control to be of special importance. Dr. SCHNEIDER (Saarbrück) described the organisation and work of travelling laboratories in the campaign against typhoid fever. (In the hygienic museum a number of examples of portable outfits for travelling laboratories were displayed.)

Control of Infectious Diseases.

The subject of disinfection also occupied the attention of Section V. Professor VON ESMARCH (Göttingen) discussed uniform methods of testing disinfecting apparatus, which he considered should include measurements of the pressure and temperature, and direct tests on specimens of various bacteria, preferably anthrax spores dried on pieces of thread. The discussion was continued by Professor PROSKAUER (Charlottenburg), Professor CZAPLEWSKI (Cologne), Professor BONJEAN (Paris), Professor GAFFKY (Berlin), and others.

Preventive Inoculations.

In Section V. the subjects of preventive inoculation against typhoid fever, cholera, and plague were discussed. Professor PFEIFFER (Königsberg) spoke on immunisation in cholera. Dr. STRONG (Manila) said that cholera inoculations in Manila had been done by means of extracts made after the method of Wassermann. Some 6000 inoculations had been made with good results. A large dose of the free receptors was needed to produce immunity. During the last year or two he had undertaken much work in regard to plague inoculation. In cases inoculated with killed cultures no agglutinating or bactericidal substances could be detected after two or three weeks, and with guinea-pigs no immunity was produced against the living cultures. Latterly a living attenuated plague bacillus had been used for the inoculations. Both in persons and in experimental animals the only reactions showing plague immunity were the opsonic (Wright) and deflection of complement (Bordet); no agglutinating, bacteriolytic, &c., properties made their appearance. Vaccinating with an attenuated living culture, the organisms multiplied for some 30 hours and the production of immunity was therefore due to the production of receptors which stimulated the formation of amboceptors in the body. For the inoculations with a living culture the strictest precautions must be taken to insure that the culture really was avirulent. The results obtained in Manila indicated that this mode of vaccination reduced the mortality to 16 per cent., the mortality among the uninoculated being 66 per cent.

Sir A. E. WRIGHT (London) described the method of prophylactic inoculation against typhoid fever and discussed the results obtained with it.

Dr. RIDEAL (London) communicated a paper on

Modern Methods of Illumination and their Hygienic Importance.

He had found that an individual, sitting quietly, during the evening loses weight to the extent of nearly half a pound, due apparently to loss of water, and that this occurs whether the illumination be the incandescent electric light, with which, of course, no water is produced, or the incandescent gas-burner.

Filtration.

On Friday, Sept. 27th, papers in Section VI. dealt with the filtration and ozonisation of drinking water. M. AMAND PUECH arrived at the following conclusions: 1. The film such as forms on the fine sand filters, which receive water that has simply passed through a settling tank, is a serious hindrance to the filtration, because it frequently renders useless the contact surfaces of the elements comprising the beds. 2. The characteristic of M. Puech's filtration is that it enables the elements contained in the filtering beds to be of use, affording the maximum contact surface to the suspended matter as well as to the microbes. 3. In fine sand filters the most commendable process is that which, while assuring ample purification, prevents the formation of an impervious film—in short, that which gives the longest life to the filter beds. An elimination of 95 per cent. of bacteria present in unfiltered water is effected by this process. Professor CRASSBURGER (Vienna) related his experience in water collected by valley-dykes. He concluded: (1) that such water must undergo artificial purification; (2) that the feeders of such water must be carefully superintended to avoid introduction of pathogenic organisms as artificial filtration is not an absolute guarantee of their removal; and (3) the purity of the intake and outflow waters should be judged by bacteriological methods, particularly Eglemann's test. The continuous control of such reservoirs by a hygienic institute or by an expert is required. A discussion on ozone purification was initiated by French delegates and contrasted with other methods of water purification. It is sharply distinguished as being a sterilising and not a clarifying process, and its use presupposes that the water is practically free from suspended organic matter. It compares favourably with other sterilising processes in leaving no undesirable residue in the water, and the bacillus coli occasionally present in filtered waters is destroyed with certainty by passing the water through an ozonising apparatus.

Berlin, Sept. 28th.

THE HOUSING PROBLEM.

Section VI.A was one of the hardest worked sections of the Congress. It was a section that really dealt with sanitation rather than with the questions on which sanitation is based, such as bacteriology, but which cannot be considered as sanitation proper. Indeed, as these congresses are so vast as to be absolutely unwieldy, it might be a solution to the difficulty if we came back to a clearer definition of terms. The great crowds that have during the week thronged in Section I. clearly show that a very good international congress on bacteriology, and bacteriology alone, might be held. The same might be said in regard to the treatment of tropical diseases and the treatment of tuberculosis, leaving questions of draining malarious districts, of killing mosquitoes, or of building sanatoriums, and the various necessary police measures to be discussed at congresses of hygiene or sanitation proper. Here at Berlin more than 3000 members of the Congress have been enrolled; indeed, the general secretary assures me that before the list is closed it will amount to a figure nearer 4000 than 3000. This is too large a number and it is difficult to discuss thoughtfully and seriously in such a crowd. However, in Section VI.A very earnest efforts were made, but this was more especially a practical section endeavouring to indicate not so much what should be done but how it should be done. Thus everybody agrees that it is necessary to live in a healthy dwelling but that, especially in large industrial centres, a considerable section of the population is very unsatisfactorily housed. On the first day of its meeting Section VI.A discussed reports specially prepared for this section on the housing problem. M. E. CACHEUX, who is known all over Europe for the interest which he takes in this subject, dealt with the French services for the relief of the poor and showed that some of the public funds were now employed to build cheap dwellings, notably in the rue Delombre, Paris. The demand for these municipal dwellings is five times greater than the supply.

Mr. HENRY R. ALDRIDGE, secretary of the English National Housing Reform Council, in his report urged that municipal and private enterprise should secure cheap land on the outskirts of towns and there build, not for speculation, but to let at a price that would just suffice to cover interest,

sinking fund, rates, and repairs. It would, however, be necessary to have constant inspection, as slum-dwellers did not reform the moment they entered better houses. It would be well to divide such classes and not to allow them to cluster together again.

Professor FUCHS (Freiburg) gave statistics to show that though workmen's dwellings were becoming smaller and smaller the rents continued to rise. This he denounced as constituting a social danger which should attract the attention of the entire nation. Speculation in the land of the large German towns had increased of late to an extent which is not realised abroad. Such speculation greatly aggravated the difficulties of the housing problem.

M. AUGUSTIN REY (Paris) made a very clear and concise statement which coincided with that of the German reporter in blaming land speculations. As the land becomes dearer the houses are built higher and the unhealthy block or barrack system arises. With cheap land there can be the true home where every family has a house or a cottage to itself. Therefore the community has every interest to withdraw from the market and its speculators as much land as possible. The municipalities consequently must not on any account sell any land which they may possess and they must seize every opportunity of buying as much land as possible. By buying up all the cheap land in the outskirts of towns without violence or disturbance the present speculations in land would be checked. Also when the municipality owns a large quantity of land it can control the market value of land and thus reduce the cost of compulsory expropriations. As matters now stand municipalities have to pay in compensation much more than the land is worth. But while M. Rey was thus anxious to see municipalities become large landowners he did not wish to see them become house owners. He argued, on the contrary, that the land should be leased under certain conditions to private enterprise. If the occupiers were to be municipal tenants he seemed to fear that one of these days they would form a no-rent league and refuse to pay anything whatsoever. This desire to draw a line in the sphere of municipal enterprise caused an animated discussion. Considering that in London private enterprise gave up all attempts to reconstruct condemned areas, and that this work has had to be done entirely by the London County Council, the British members did not approve of an attempt to condemn municipalities which themselves built and let directly to the tenants. Besides, in England the speculations which the reporters to the section so energetically denounced occur in buildings rather than in land. A motion was proposed and as a further complication it recommended garden cities, which might be taken as meaning a particular English company. In reality the author of the German text meant that villas and cottages should be surrounded by gardens and that this was preferable to streets where the houses touched each other. Mr. ALDRIDGE replied that the section should not condemn municipal action but combine to encourage every efficacious measure that had been taken. They could not say that it was "preferable" that municipal land should be let on building leases. This might or might not be the case. But the section was unanimous in declaring that land should not be made the subject of speculations; that the public authorities were realising how gravely such speculations compromised the public welfare by endangering the public health. Therefore it was time to take action. The proposers of the motion were requested to withdraw the word "preferable" and to leave the matter open. Ultimately the following compromise was agreed upon and carried unanimously:—

The Congress is of opinion that the root of the question of cheap dwellings rests in the land question. To oppose speculation in land it is desirable that municipalities, as the representatives of the higher interest of public health, should possess extensive domains in land cheaply purchased. On these lands the municipalities should encourage, according to circumstances and by the best means available, the construction of cheap dwellings built in such a manner as to conform with the laws of hygiene. It considers that the type of dwelling which best realises this end is that of the garden city.

SANATORIUMS IN TROPICAL COUNTRIES.

Section VII. was devoted to problems that arise in the tropics and, among others, several reports were sent in dealing with sanatoriums in hot climates. Professor ALBERT PLEHN (Berlin) in his report said that in cases of malaria and dysentery no direct or immediate improvement took place if the patient was sent to some health station on a higher level and in a cooler climate. Indeed, such a change might seriously injure the patient, particularly if the journey could not be easily and comfortably accomplished. Quinine rendered better service and when a high latitude could be reached safely it was necessary to continue to take quinine; then great benefit might result, especially to the nervous system.

Dr. KOHLBRUGGE (Utrecht) was of opinion that the use of sanatoriums in tropical climates was purely empirical. The sanatoriums should be on elevated ground and plentiful in times of peace as in times of war. All Europeans should reside as often as possible in the mountains. In choosing a site the nature of the soil was as important as its altitude, but the hills were not suited to cases of beri-beri or pulmonary tuberculosis though very useful for general weakness, nerve trouble, tropical liver, and malaria. Indeed, he thought that where hills were available there should be no deaths from malaria.

Dr. F. M. SANDWITH (London) also read a paper on this subject. He, however, confined his remarks to places dependent on Great Britain, ranging from 30° north to 30° south latitude. Half his paper was devoted to the health resorts of British India, some of which could well be imitated in other parts of the empire which had come more recently under British control. Some 40 Indian stations were briefly mentioned and it was pointed out that the "hill season" lasted from the middle of April to the middle of September. Short notes were given touching the altitude, temperature, rainfall, and water-supply of most of the resorts. Kashmir was especially praised as a valuable station with a climate in many ways similar to that of Switzerland. A record was given of the different places to which convalescents were usually sent from the Malay Straits, China, Australia, and the West Indies. South Africa was well provided with mountain heights, though few of them were as yet available for invalids, and they were reminded that visitors must in that country have their pockets well lined with money and specially protect themselves from endemic typhoid fever. Several well-known sanatoriums were described on the Karroo, at Johannesburg, in Natal, and Rhodesia. The parts of Egypt suitable for invalids were noticed and a description was given of Erkowit, the newly established sanatorium of the Soudan, near Suakin. Dr. Sandwith concluded with an earnest appeal to the Government to establish sanatoriums in every tropical dependency not now possessing one, and drew a distinction between the cases which experience taught had better be sent for rest and change of air to bracing altitudes or to favoured spots on the sea-coast. Among the latter it was usually found that in dysentery patients were liable to relapses if sent to heights and that such convalescents were prone to become affected by "hill diarrhœa." He also considered that blackwater fever and some diseases of the nervous system had better be treated on the sea-coast in preference to mountain heights. But no station in the tropics, however perfect, could take the place of periodical visits to the good food and air of Europe.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

The Medical Conversazione.

THE conversazione held according to custom on the evening of the first day of the winter session of the medical department of the University of Birmingham was in every respect a very successful gathering and the visitors had not only an opportunity of inspecting the laboratories and seeing numerous interesting exhibitions but they had also provided for them a most excellent concert. The guests were received in the Founders' Room of the University Club, which is directly connected with the medical school buildings, by the Dean of the Medical Faculty (Professor H. G. Barling), the subdean (Professor Arthur Robinson), and the honorary secretary of the dental school (Mr. J. Humphreys). The most noticeable features of the concert were Mr. Julian Osler's songs, Mr. Fairfax Crowder's violin solo, Mr. H. Pickup's 'cello solos, and Mr. Bertram Lloyd's pianoforte solo. Judging by the attendance the attractions of the music far outweighed those of the demonstrations and exhibitions. In the pathological department Professor R. F. C. Leith demonstrated the difficulties of diagnosing anthrax by microscopical methods and Dr. J. Miller and Dr.

L. G. J. Mackey made clear the method of obtaining the opsonic indices. Professor Priestley Smith exhibited a number of preparations to illustrate different methods of mounting ophthalmic specimens, some of which were extremely effective. Preparations illustrative of diseases of the nervous system were shown by Dr. A. Stanley Barnes and numerous exhibits of new instruments, apparatus, and medicinal preparations were displayed in the rooms of the various departments. The dissecting-room was devoted largely to the display of medical and surgical appliances but amongst other things there were some beautiful photographs made by the Lumiere autochrome process which suggested the applicability of that process for the registration of medical and surgical conditions in which colour forms an important feature. Still, in spite of the beautiful results it gives, the process will be limited in utility so long as it is not possible to print the photographs on paper and whilst they must be stored and shown as transparencies.

Queen's College Hall of Residence.

With the opening of the winter session the experiment begins of carrying on a hall of residence for male students in association with the University. The accommodation provided appears to be in every respect satisfactory. The rooms are well furnished and they have been tastefully decorated. There are comfortable common rooms, a large dining hall, a gymnasium, and a library, but the latter has still to receive its proper equipment. The rules and regulations, with certain modifications, will approximate to those in force in the Colleges of Oxford and Cambridge, and the students when in the hall will be under university discipline and will be supervised by a warden and vice-warden. It is hoped that at the commencement from 20 to 25 students will avail themselves of the privileges and facilities which the hall offers, and it is believed that the numbers will rapidly increase.

Stoke Workhouse Hospital and Sick Children.

It appears from the account of a recent meeting of the board of guardians that the accommodation for sick children in the Stoke-on-Trent Union Workhouse is deplorable. According to the medical officer's report, there is an insufficient number of beds, so that two and even three children have to be placed in one bed, the isolation accommodation is inadequate, and, as a result, various infectious diseases are passed on from child to child. Obviously such a condition of affairs ought not to exist at the present day, for not only is it intolerable from a sanitary point of view, but it is also a costly process in more ways than one. Apparently the present condition of affairs has resulted from the adoption of cottage homes and the thoughtless utilisation of the room thus left vacant by the removal of the children for other purposes, whilst no proper provision was made for sick children. The experience of Stoke-on-Trent should serve as a warning to other localities not to adopt ill-digested schemes.

The Warley Model Village Scheme.

The original Warley Model Village scheme concerning which I wrote in July last has come to an end. The necessary number of applicants could not be secured, therefore the money received from the 103 subscribers is to be returned and the original committee dissolved. The idea, however, is not to be given up, for Mr. Chance has obtained a fresh option which extends to the end of the year, and a new committee has been formed. That a village in the situation selected and on the lines previously sketched out would be a great acquisition from a sanitary and ethical point of view is undoubted, and, as Mr. Chance said, if the new committee could succeed in finding the necessary £22,000 before the option expires they would "accomplish a work which would redound to their credit and which people in other parts of the country would do well to copy."

Presentation to the Founder of Walsall Hospital.

On Tuesday last a meeting was held in Walsall for the purpose of making a presentation to Mr. S. Welsh, who was the founder of the hospital and a co-worker with Sister Dora. The hospital has been in existence for 44 years and the idea of forming it originated from a letter sent from the Birmingham General Hospital expressing the hope that Walsall would send fewer patients or more money to Birmingham. The result was that Mr. Welsh formulated a scheme for a cottage hospital which was the predecessor of the present hospital. For many years Mr. Welsh was secretary of the hospital, and, as the chairman of the testimonial committee (Mr. F. E. F. Baily) pointed out, many of the difficulties which had arisen had been overcome by Mr. Welsh's tact and ability.

The Epidemic of Scarlet Fever.

There is every indication that the present epidemic of scarlet fever will run a course similar in length to that of its predecessors. During the week ending Sept. 21st 79 cases were notified, an increase of 35 over the preceding week. During the past week the number of notifications was smaller, but the epidemic has been marked by similar fluctuations and at present there seems to be little hope of the termination of the disease. Fortunately, the cases are generally of a very mild type and fatal results are produced in only a very few instances. The continued progress of the epidemic, in spite of all the precautions taken in the light of our present knowledge, seems to show that we have yet much to learn concerning the causation and spread of the disease.

The Funeral of Mr. J. St. Swithin Wilders.

The funeral of the late Mr. St. Swithin Wilders took place on Sept. 25th at Harborne, in the parish churchyard. During his life Mr. Wilders had served in many public offices and at his funeral the watch committee, of which he was once chairman, was represented by Alderman Bishop; the university, of which at the time of his death he was emeritus professor of forensic medicine, by Professor Bennett May, Professor Jordan Lloyd, and Professor J. T. J. Morrison; the Queen's Hospital, on the staff of which he had served, by Alderman Clayton, the Rev. W. G. S. Whicker, Dr. C. E Purslow, and Professor Priestley Smith; and the Ear and Throat Hospital, on the staff of which he had served as a surgeon, by Mr. T. W. Brewett and Mr. S. G. Grew.

Bequests to Local Charities.

By the will of the late Alderman Charles Akrill, J.P., of Sunnyside, Richmond Hill, Edgbaston, the Children's Hospital, Birmingham, will receive £1505, the West Bromwich District Hospital £1750, the West Bromwich Nurses' Home £1000, and the Princess Alice Orphanage £1000.

Oct. 2nd.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Ashton and the Local Government Board.

Ashton-under-Lyne, as represented by the town council, feels much aggrieved by the report of a medical inspector sent by the Local Government Board. The chairman of the sanitary committee said the members were unanimous in criticising the unfairness of the report and he gives as the reason for the attack on the town that they would not fall in with the Local Government Board's idea of paying a large salary to the medical officer. Another gentleman compared the medical inspector with the local medical officers of health, rather to his disadvantage, and stated that the inspector "had only been a doctor 13 years" and he "protested against those whipper-snappers from the Local Government Board coming down." He said the Board had sent its officer down to the neighbouring places in the district, "and he had made reports on these in the same surreptitious way as he had about Ashton." All this sounds undignified and a little paltry and is likewise inaccurate as to the professional standing of the "whipper-snapper." No one likes being found fault with and sanitary committees are sometimes sensitive, but if the medical officer's salary is low and the tenure of the office uncertain, without in any way disparaging the praiseworthy work of the present holder of the position, it may be asked whether this is not a case for the grouping together of some of these populous villages and towns so that a fair stipend might be given to a medical man who could afford to give his whole time and attention to the work of his office. In many cases, of course, some of the local people value the uncertainty of the tenure of the medical officer of health as giving them the whip hand over him and as a protection against adverse reports as to places or property in which they are interested. This country will not be placed in a fair position as to the public health until medical officers of health, who work for the whole community, are not subjected to these antagonistic local influences.

Oct. 1st.

LEEDS.

(FROM OUR OWN CORRESPONDENT.)

The West Riding Medical Charitable Society.

THE Medical Charitable Society of the West Riding of Yorkshire is an association which stands high in the estimation of all who are connected with it, for it can point to a record of work over a long period of years which may be regarded as in many ways remarkable. The society was inaugurated in 1828, the first list of annual subscribers numbering 47, and at an early meeting it was determined not to make any grants until the capital sum in the treasurer's hands amounted to £2000. At the end of nine years, as an old report states, "of alternate hope and fear" this was attained, and two grants of £15 were made, one to a disabled practitioner and the other to the widow of a medical man. From that time until the present date no less a sum than £44,615 has been voted in grants to necessitous members of the profession and to the widows and children of deceased members. By the most careful and economical management of the funds of the society, and in a measure by the generosity of members of the general public who have contributed some £4300, the invested funds of the association now amount to about £34,000. The annual subscriptions yield about £750. The objects of the society are to aid the widows and children of members dying in indigent circumstances, to aid the sisters of such members being single women and widows who have lived with their brothers as housekeepers for a period of not less than five years preceding their death, to aid such members as are wholly or partially incapacitated by age or permanent bodily infirmity and who are disabled from practising for a period of six months, and, lastly, to aid in the education of the children of members thus incapacitated or disabled. No one is eligible to become a member if he has been in practice in the West Riding for 20 years without having subscribed, no one is admitted as a new member if he is more than 50 years of age, and no one may become a recipient of charity of the association who has not subscribed for a period of five years. The district is divided into 19 areas, each of which has a steward appointed to it. With the circumstances of every applicant for relief the steward of the special area makes it his duty to become fully conversant. A preliminary meeting of the stewards and other officials is held just before the annual meeting, at which all applications are scrutinised with the utmost care but with the determination to grant as much relief in all cases of real necessity as the finances will allow. The matter is then gone over again at the general meeting and some of the cases may have extra light thrown on them. At the annual meeting which has just been held at Dewsbury under the chairmanship of Mr. Edwin Lee applications to the number of 49 were received and the society was able to make grants in every case. The amounts voted varied from £15 up to £65 and the total sum voted was £1720. Though there is indeed something infinitely sad about these meetings—for one learns, often it may be with surprise, that a brother practitioner has fallen by the way or has been cut off without having been able to make provision for his wife and family—there is at the same time the great and compensating comfort that without any great personal sacrifice it has been possible to assist in making life easier for less fortunate brethren. The society is one to which every medical man in the West Riding who is qualified to be a member should belong. He may then feel certain of two things: one is that he will do good, and the other is that if the unexpected happens and he himself or his wife or children are in want they will not be without sympathy and pecuniary support. For many years the business of the society has been assiduously and zealously supervised by Mr. C. G Wheelhouse who appears to find his chief joy in his honourable retirement in doing all he can for the welfare of the association. That he may long be spared to do so is the earnest hope of all the members.

The Post-Graduate Course at the Public Dispensary.

The third post-graduate course begins at the dispensary this week, when Dr. T. Wardrop Griffith will give a demonstration on Some Points in the Anatomy and Pathology of the Heart. Dr. Griffith's second demonstration will deal with the Anatomy of the Nervous System viewed from the clinical aspect. Dr. E. F. Trevelyan will give two demonstrations on nervous diseases, his subjects being Birth Palsy and the Relation of Injury to Nervous Disease, Organic and Functional. Dr. W. M. Melling will discuss Enlargements of the Liver and will show some cases of Diseases of Children. Dr. G. W. Watson will give a demonstration on the Physical Signs in Pulmonary Diseases. Mr. Michael Teale's demonstrations will deal with Diseases of the Eye and Dr. A. Sharp's with Diseases of the Nose. Dr. D. Seaton will show surgical cases. The course will be supplemented by a lecture on Some Diseases of the Breast which Mr. Walter Thompson has kindly agreed to deliver, while Dr. Bedford Pierce will speak on the Practical Difficulties in the Certification of the Insane. It is a matter of some congratulation to those who initiated this course that a second course has been requested during the present year by those who desire to attend. As on the former occasion, the number attending the classes has been limited to 20 and this number was reached some weeks ago.

Oct. 1st.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

St. Andrew's Ambulance Association.

THE St. Andrew's Ambulance Association has just issued its twenty-fourth annual report, and from its perusal one can gather that the association is carrying on its work in an extremely efficient manner. During the past year 7874 calls were made on the wagons of the association and the total number of patients conveyed since the formation of the association is now 85,149. In Glasgow alone the number of calls during the year was 5195. This represents an average of 14·23 turns-out daily, or leaving Sundays out of the calculation 15·43. Of these 3155 calls were to accidents and 2040 to cases of illness. In 144 cases the wagons were not required on arrival. As regards the 3155 calls to accidents, 954 were from police offices, houses, and stairs; 1084 were street accidents; 497 from public works; 305 from docks and wharves; and 171 from railways and stations. 2641 cases were taken to the Royal Infirmary, 1172 to the Western Infirmary, 373 to the Victoria Infirmary, and 161 to the Maternity Hospital, the remainder being taken to their homes or other institutions. In all, the wagons covered 22,372 miles during the year. The motor ambulance wagon presented to the association last year has been in use since October last. Since then it has run 3926 miles and proved very useful, especially for long-distance removals. It is at present too early to pronounce as to its comparative utility and cost with regard to the horse-drawn wagons, but careful statistics are being kept and after a year's trial it will be possible to form an opinion on these points. During the year the association conducted and examined 389 classes in "first-aid to the injured" and 25 in "home nursing and hygiene." In connexion with these classes 3832 "first-aid" certificates and 328 "nursing" certificates were granted, making a grand total of 76,686 certificates since the formation of the association. In addition 1741 medallions were issued, making a total of 22,592 in the past 24 years. The medallion is issued to those certificated pupils who, in a subsequent session, attend a second course of lectures and pass an examination on a higher standard in first-aid or home nursing and hygiene. Classes have also been carried on in connexion with the police forces in the counties and burghs. The value to the public of the efficient training of the police in such matters cannot be over-estimated. It is interesting to note that the association has been approached by the Army Council with a view to its taking over the military hospitals in Scotland in the event of the country being engaged in war. The council of the association agreed to formulate a scheme and to undertake the responsibility of providing for this emergency.

Cerebro-spinal Fever at Forfar.

On Tuesday night of last week a little girl aged four years, residing at East High-street, Forfar, was removed to the county isolation hospital suffering from cerebro-spinal fever. This is the first case which has been notified for several weeks and the authorities were congratulating themselves on having successfully stamped out the disease.

The Epidemic of Enteric Fever at Peterhead.

During the past week only two cases of enteric fever have been notified to the medical officer of health and in both cases the patients have been removed to the hospital. Ten

patients have been dismissed from the hospital after recovery while one death has occurred, leaving 18 patients still in the hospital.

University of Aberdeen: Preliminary Examinations in Medicine.

The preliminary examinations in medicine commenced at Marischal College last week. The candidates number 29, compared with 33 last year. It is understood that the results will be announced on Oct. 14th.

Forres Leanchoil Hospital Case: Sheriff Principal's Decision.

Sheriff Wilson has now issued his interlocutor in the action which was appealed to him at the instance of Wm. Kessack, coachman, Market-street, Forres, against Dr. J. Adam, Forres. The pursuer alleged that his wife, while a patient in the Leanchoil Hospital, was not properly treated and that after her death at his house the coffin was opened and her body examined without his consent. Sheriff Gray assoilzied the defender and found him entitled to his expenses and Sheriff Wilson has confirmed his decision, with additional expenses. The sheriff, in a note, says he is of opinion that the pursuer's case has completely failed and that the defender, Dr. Adam, ought to be assoilzied. He concurred not only in the result arrived at by the sheriff-substitute, but also in the grounds of the decision, as these are stated and explained in his interlocutor and note, and he thought it unnecessary to add anything in supplement.

Oct. 1st.

IRELAND.

(FROM OUR OWN CORRESPONDENT.)

Proposed New City Abattoir in Belfast.

WHILE your Special Sanitary Commissioner is pointing out (THE LANCET, Sept. 21st and 28th) the weakness of Dublin as regards an abattoir, it is interesting to note that in Belfast an effort is being made to build one on modern lines, the only difficulty being the cost. On Jan. 17th, 1903, the market committee recommended the acceptance of a tender for a new structure at £22,700, but as the fittings would cost £7000 the total expenditure would have been equal to the amount raised by a loan. The committee refuses to recommend any scheme of extension of the premises which would be costly to work and to maintain, and which it does not think would give satisfaction, and at a meeting of the city council in committee on Sept. 27th it was decided to authorise the market committee to submit alternative plans of modern accommodation at the present site, the total cost not to exceed £30,000.

Belfast Health Commission.

The Commissioners met in London this week to draw up their report, which it is expected will be ready this month.

Oct. 1st.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Explosion at the Hôpital Tenon.

AN apparatus for warming dinner plates exploded recently in Dr. Souligoux's wards in the Dolbeau pavilion of the Hôpital Tenon. The accident occurred at about 12 noon and created consternation among the patients. A piece of cast iron weighing about a hundredweight, which formed the upper part of the plate warmer, was thrown into the air, and in falling it demolished a partition wall. A female dresser was thrown against a window by the force of the explosion and she was severely scalded by an escape of steam. A porter was also scalded on the neck. An inquiry into the cause of the disaster is being made.

Insanity and Alcoholism.

Some interesting particulars relative to the influence of alcohol in producing insanity are contained in a report furnished to the prefect of the Marne by Dr. Sizaret, principal medical officer of the asylum at Reims. Among 504 male inmates there were 58 in whose insanity alcoholism was the chief factor, 57 in whom it was one of the factors, and five in whom there was a family history of alcoholism. Among 725 female inmates there were 26 in whose insanity alcoholism was the chief factor, 27 in whom it was one of the factors, and five in whom there was a family history of insanity. The report adds that in reality the connexion between insanity and alcoholism is even closer than these figures indicate.

Plague in Algeria.

The Governor-General of Algeria has telegraphed to the President of the Council of Ministers that the existence of plague in the Port of Oran has been officially declared. The disease made its appearance in the lower part of the town and bacteriological examination leaves no doubt as to the diagnosis. Up to the present time there have been only two deaths, the victims being a porter and the wife of the wharf superintendent. According to some accounts there have been four patients and according to others there have been 11. The chief of the sanitary service of the Government has arrived and has conferred with the municipality as to the measures which should be taken. The tenants of the building (*immeuble*) in which the cases occurred have been medically examined and all the houses of the district have been disinfected. Injections of serum have been given to some dock labourers who had been handling suspicious freight. Measures for the destruction of rats have also been commenced by the naval authorities and the chamber of commerce.

Oct. 1st.

VIENNA.

(FROM OUR OWN CORRESPONDENT.)

The Successor of Professor Politzer.

Professor Victor Urbantschitsch, who is now in his sixtieth year, has been appointed the successor of Professor Politzer in the chair of otology in the University of Vienna and will take over the work of the clinic on Oct. 1st. The new professor has hitherto been director of the otological section of the Vienna Polyclinic, and his lectures, which were delivered in English as well as in German, were well attended by medical men from all countries. The studies of the new professor have been principally directed towards the treatment of chronic catarrhal disease of the ear and his books and monographs on his specialty are very numerous. Professor Urbantschitsch has founded a special school in Vienna where many otologists have been trained and the increased opportunities afforded by the extensive material of the clinic in the general hospital will be advantageous to both teacher and students. A farewell meeting was held in honour of Professor Politzer on his taking leave of the place where he had worked for over 30 years. All his former assistants, some of whom are now professors and *privat-docenten*, were present on this occasion.

The New Winter Term.

The new winter term of the University of Vienna commences on Oct. 1st. There is not much difference, as regards the number of lectures and the names of the lecturers, between the present programme and that of last term. Special courses will be delivered in English by several professors and lecturers. Among these there may be mentioned courses on internal diseases by Professor Kovacs, on ophthalmology by the assistants of the two ophthalmological clinics, on dermatology by the professor and his assistants, on laryngology and otology at the respective clinics, and on gynæcology and obstetrics at the clinics Schauta and Chrobak. The fee for most of these classes is from £2 2*s.* to £4 4*s.*, according to the subject and duration of the course. As a rule, a course lasts from four to six weeks and the classes meet for one or two hours six times a week. As the number of medical men admitted to these classes is limited to ten early application is necessary. The classes are repeated from three to four times during the winter term which lasts till Easter. In all these classes English is the language used. In addition to them the professors of the respective subjects and their assistants will deliver lectures on neurology, pharmacology, pathology, surgery, ophthalmology, diseases of children, bacteriology, and anatomy, both normal and pathological. These lectures are open to any medical man on payment of the fee, which is usually between 10*s.* 6*d.* and £1, and they are mostly delivered in German. It is, however, possible to arrange for a special course distinguished as "privatissimum," in which only one individual receives instruction; the subject is generally a

practical one and the fee is usually 20 kronen (about 16*s* 6*d*.) per hour; these courses may easily be had in English. Lectures on a number of theoretical subjects have been announced by some *privat-docenten*, but only in German. A series of lectures, both in English and German, will be delivered at the Polyclinic, near the General Hospital. Practically all subjects, except obstetrics, will be lectured upon, and great attention will be given to otology, rhinology, x ray treatment, diseases of children, and ophthalmology. The fee charged for these lectures is a uniform one of 50 kronen (£2 2*s*.) per four weeks.

Small-pox in Vienna.

No fresh cases of small-pox have been notified in Vienna during the last five days so that the outbreak has presumably come to an end. In the last case notified the patient was a medical man who had volunteered for service at the small-pox hospital after having undergone an unsuccessful revaccination. The various facts observed in connexion with the hundreds of thousands of vaccinations that have been performed, especially as regards the susceptibility of certain types of individuals and the proportions of vaccinated and unvaccinated persons attacked after exposure, have not been published except to a very limited extent.

The New Institution for Mental Diseases.

With the opening of the new institution for the mentally afflicted, to which the name of "Landes-Heil-Anstalt für Geisteskranke" has been given, Vienna can boast of the largest and best equipped public institution of its kind—in fact, of the largest public asylum for the insane in the world. It consists of many pavilions connected with each other by an electric tramway, standing in grounds extending to 1,500,000 square metres (i.e., 370 acres), of which 53,000 square metres are covered by buildings. The price of the ground was £200,000, the cost of the buildings was £250,000, and the number of inmates will for the present be 2200, but within a short time by internal adaptation of the existing buildings the accommodation will be so increased as to suffice for 3000 inmates. The whole institution will consist of three different parts. For incurable patients there are 11 pavilions, with at present 870 beds. Patients with a better prognosis will be accommodated in 13 pavilions, containing 890 beds, and in connexion with this portion of the institution there is a colony for 86 patients who can be employed in out-door work. For paying patients there is a sanatorium in which both classes of patients will be received, the accommodation being sufficient for 356 persons. In the kitchen there are 20 cooking boilers, each having a capacity of 200 litres and adequate for supplying 150 persons. A large chapel, a concert hall, and a general recreation hall are notable features, where patients whose condition admits of it can pass their time. The medical staff will consist of a director, two assistant directors, and 12 medical men. The sanatorium, which stands in a small forest of 80,000 fir-trees, contains all the requisites for electro-therapeutic and mechanical treatment.

The Protection of Water-supplies.

The increase of industrial establishments in the Alpine countries on account of the readiness with which mechanical force may be obtained from waterfalls has necessitated a revision of the existing statutes against pollution of water-supplies by factories and their waste products. The provision of special drainage is now required by the law, which is very strict on the subject, as not only is drinking water in the mountain regions often taken from the brooks and rivers which are now to be used for industrial purposes, but fishing is also followed by many persons as a means of livelihood.

Sept. 30th.

AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

Melbourne Hospital.

THE sixtieth annual meeting of the governors and supporters of this institution was held on July 24th. The total number of patients treated during the year was 25 639, including 5060 in-patients, 12,118 out-patients, and 8641 casualties. Of consumption 152 cases were treated, while the cancer cases numbered 166. The statement of accounts showed a credit balance of £2742. The committee has concluded that if the proposed rebuilding scheme is carried out the only site preferable to the present one is that in the Sydney-road, close to the University grounds. The quadrennial elections for staff appointments were held on August 27th. The number of voters now totals over 5000 and the proceedings are conducted after the manner of a Parliamentary contest. The feeling of the profession is unanimously opposed to this pernicious system but it continues to flourish chiefly on account of its revenue-producing effect. Hundreds of new names are added to the list of subscribers before every election. The retiring in-patient surgeons, Mr. W. Moore, Mr. G. A. Syme, Mr. R. A. Stirling, Mr. C. S. Ryan, and Mr. F. D. Bird were re-elected without opposition but there was a contest in every other department. The poll was the heaviest yet recorded and resulted in the return of the retiring staff by large majorities over the nearest unsuccessful candidate. The following were therefore re-elected: As in-patient physicians: Dr. H. C. Maudsley, Dr. J. W. Springthorpe, Dr. W. R. Boyd, Dr. J. E. Nihill, and Dr. Howard. Physicians to out-patients: Dr. R. R. Stawell, Dr. R. H. Strong, Dr. W. Ostermeyer, Dr. J. F. Wilkinson, and Dr. Hiller. Surgeons to out-patients: Mr. G. C. Rennie, Mr. T. H. Boyd, Mr. F. H. Langlands, Mr. J. Gordon, and Mr. A. W. F. Noyes. The appointments in special departments are made by the committee and are not affected by these elections.

Lunacy Reform in Victoria.

On August 5th Sir Alexander Peacock, the Chief Secretary, made a personal inspection of the conditions prevailing at Kew Asylum which had been adversely commented on by the official visitors. The inspector-general of the insane (Mr. Ernest Jones) accompanied the party which included several officials. Sir Alexander Peacock subsequently expressed himself as convinced that considerable alteration was necessary. With regard to the inspector-general who has come in for criticism, Sir Alexander Peacock remarked that the Government would have to take its share of any blame because it had been decided that no alterations or additions should be made at Kew. He (the Chief Secretary) was strongly impressed with the views of Mr. Jones as to the necessity of the separation of the idiot asylum from the Kew buildings and would strongly support this reform. As to the conditions of the courts, yards, and dormitories, Sir Alexander Peacock stated that he had found everything satisfactory. It is proposed to sell the present site occupied by the Kew and Jarra Bend Asylums and to build a modern asylum at Heidelburg, a few miles further out of the city.

Hospital Saturday Fund.

At the annual meeting of the Hospital Saturday Fund in Sydney reference was made to the increase in cost of hospital maintenance. In 1899 the total cost of maintenance and administration in 18 institutions participating at that date was £61,615. In 1906 it was £85,737. The average cost per head had risen from £55 6*s*. 8*d*. in 1899 to £61 16*s*. in 1906. The secretary and the medical superintendent of the Prince Alfred Hospital have replied that the increase has been occasioned by improved methods of treatment. The x ray department and pathological department for clinical purposes were recent additions. The report drew pointed attention to the fact that when wage-earners were asked to contribute 1*d*. per week on behalf of the 27 approved hospitals and auxiliary charities there was much apathy among a large section from whose ranks so many hospital patients are drawn.

Whooping-cough in Sydney.

Dr. W. G. Armstrong, the city health officer of Sydney, in a newspaper interview, said that the present epidemic of whooping-cough was the most severe experienced for some years. Already 158 deaths have occurred (July 24th). In 1901 166 deaths were attributed to this cause and since then the affection has scarcely been epidemic. In 1906 only two deaths were returned from this cause. The disease has been accompanied in the majority of fatal cases with broncho-pneumonia.

Patent Medicines.

In December, 1906, the Commonwealth Government appointed Mr. O. C. Beale of Sydney a Royal Commission to inquire into the manufacture, importation, and sale of patent medicines and drugs. It is not quite clear why Mr. Beale was singled out for this work. He is the head of a firm that manufactures pianos. The report which has just been

presented assumes the form of a bulky volume of 455 pages. The following are Mr. Beale's principal recommendations :—

That every patent medicine, when issued for retail trade, shall be accompanied by the formula of preparation.

That no advertisement or other recommendation be permitted upon the article itself or its covering.

That no advertisement of any proprietary or secret cure be permitted in any publication.

That the transmission through the post of literature concerning such medicines should be prohibited.

That letters patent be granted for approved and novel formulæ for prevention or cure of human ailments.

That registration of every proprietary name applied to such medicines be compulsory; that the quality, nature, and properties of the composition shall be component with the claims of the proprietor.

That the prohibitions and restrictions applicable to imported medicines in the country of origin shall apply to them in Australia—the same to hold good of goods and other articles of human consumption.

Elsewhere the report states :—

The general tendency of producers and traders in Australia, as represented by the manufacturing and commercial associations, is to exclude fraud under every appearance, but unless the law is with that tendency and forbids the immoral and even criminal exploitation of the public—worst of all where, as in Great Britain, the State demands an eighth share in the full retail price of every, even the most, pernicious proprietary specific under quasi-medical pretence—no moral restraint can be effective.

Mr. Beale concludes his exhaustive report with the opinion that "upon the architraves of the Commonwealth Health Offices should be engraved the ancient maxim, in any language that will be most effective, 'Remember to distrust.'" It is not likely that any new legislation will be founded on this report.

Faith Healing.

Dr. R. H. Cole, the district coroner of Melbourne, recently concluded an inquest on the body of a Mrs. Hare who died without having had medical attention. The evidence showed that the deceased and her daughter were adherents of a "Divine Healing and Full Gospel Mission." When the mother was taken ill the daughter sent for a Mrs. Weare, the president of this mission, who came and prayed in the sick-room. Subsequently a friend insisted on medical assistance being obtained and a medical man attended but his services were declined. On the next day the illness proved fatal and a post-mortem examination revealed the immediate cause of death to be acute pneumonia. Dr. Mackeddie, who made the post-mortem examination, stated that he did not think any treatment would have availed as other organs were extensively diseased. In view of this opinion and the fact that the daughter appeared to be weak mentally the coroner found that no blame attached to anyone.

Sale of Opium.

The wholesale druggists of Sydney have been startled by the reception from the Minister of Customs of instructions as to the amount of opium which they may sell to retail druggists in the course of 12 months. The amount is fixed as follows :—Ext. opii liq. five ounces, solid extract two ounces, powdered or gum four ounces, and tinc. opii two quarts. The mandate has caused some consternation and is resented by all druggists. The Pharmacy Board passed a resolution protesting against such restriction of the supply of this drug which they contend will have disastrous results. It is improbable that the order will be very rigidly insisted upon. The Customs department has stated that no limitation is intended in the use of opium for medicinal purposes.

Exhumation of a Body.

The exhumation of a body in somewhat unusual circumstances has taken place in Melbourne. In May of the present year a lad was admitted to St. Vincent's Hospital suffering from symptoms which led to the diagnosis of cerebral abscess. For the relief of this condition the operation of trephining was performed but the case terminated fatally. One of the resident staff is stated to have verified the diagnosis by post-mortem examination and also noted that there was no fracture of the skull. Some weeks subsequently the lad's mother applied for the exhumation of the body on the ground that she believed the abscess had followed on a fracture of the skull due to a blow received while at work in a factory. Acting on the advice of the city coroner the Attorney-General granted an order for exhumation which was carried out on August 19th. The body was found to be in a good state of preservation and an examination revealed that no fracture of the skull was present. The case now resolves itself into an inquiry whether any injury was received and this was adjourned till August 27th.

British Medical Men in Australia.

Legally qualified British medical men can practise in all parts of Australia but the openings are not very encouraging. Proof of registration by the General Medical Council of Great Britain must be submitted to the medical board of the particular State selected, when a certificate to practise is granted. The medical man with British qualifications who desires to practise in Australia must communicate with the medical board in any State as soon as he intends to settle, so that he may regularise his position from the beginning. The fee for registration varies from £1 1*s.* to £3 3*s.* In West Australia it is higher. Separate registration is required in each State.

Dr. Danysz's Experiments.

The final report in the series of experiments undertaken by Dr. Danysz at Broughton Island with the view of the extermination of rabbits by means of a bacillus was expected to have been ready in October. Since Dr. Danysz's departure Dr. F. Tidswell, who was appointed on behalf of the Federal and State Government to watch the experiments, has been engaged in checking results and continuing further experiments with a view of determining the possibility of infection spreading to other animals. These observations have now almost been concluded. At a recent conference, however, between Dr. Tidswell and a representative of the Pastoralist Association, under whose auspices Dr. Danysz came to Australia, it was decided to embark on a larger experiment to be conducted under what are considered more natural conditions. When this is complete Dr. Tidswell will furnish his report on the whole scheme. The new experiment will be conducted at Broughton Island where Dr. Danysz established his laboratory. The precise nature of the final test has not been disclosed, but it is expected that all the necessary data will be available early in September.

August 27th.

Obituary.

HERBERT JEKYL DYSON, F.R.C.S. ENG.,

LIEUTENANT-COLONEL, I.M.S.

THE Indian Medical Service has sustained a severe loss by the death of Lieutenant-Colonel H. J. Dyson, for the deceased officer had made a well-deserved reputation, more especially as regards his work on hygiene. He entered the Service in 1884, having attained the high position on the list of candidates at Netley entitling him to be elected for the Bengal Presidency. He passed through the usual probation on the military side, and during this period of his career was able to see active service in the last Burmese war in 1885–88. He was afterwards employed under the civil government of the Punjab and was appointed a deputy sanitary commissioner in that province. So well did he perform his duties there that he was elected at a comparatively early period of his service to the important post of sanitary commissioner of Bengal. Lieutenant-Colonel Dyson made many important observations; amongst these may be mentioned his report of an epidemic of cholera in the Punjab, which is a model of what a report should be; again, his researches on the pathology of hill diarrhœa were very valuable and instructive: thus he drew attention to the influence of mica in the causation of this disease. This theory, of course, was not a new one, but he illustrated it more fully, showing that the disease did not occur in hill stations resting on sandstone but was prominent in a direct ratio to the amount of mica in the soil. During the latter period of his career he was employed in the gaol department, having superintendence of the large and important gaol at Hazaribagh. He also lectured on sanitation and hygiene at the Calcutta Medical College. In recognition of his good work and many attainments he was elected to the Fellowship of the University of Calcutta.

Such is a brief record of some of the services rendered to India by the deceased officer. Of his many social qualities, of his genial bonhomie, and of the manner in which he endeared himself to his friends, those who had the pleasure of his acquaintance know full well the high opinion entertained. As the head of the Sanitary Department in Bengal he was a most charming chief to work under. It has been already mentioned in our columns that Lieutenant-Colonel

Dyson succumbed to an attack of sprue in the Calcutta General Hospital on Sept. 3rd.

JOHN GOULD, M.R.C.S. ENG., L.S.A., J.P.

Mr. John Gould, who died on Sept. 22nd at the advanced age of 85 years, at his residence, Oakfield, Hatherleigh, was one of the oldest medical practitioners in the West of England. He was by birth a native of Okehampton and was apprenticed in his youth to a practitioner at Hatherleigh. After this he entered University College, London, qualifying in 1844 in the usual manner as M.R.C.S. Eng., L.S.A. He soon returned to Hatherleigh, where he practised for 57 years, being also identified with every business, philanthropic, and social movement. He was probably the most widely known man in the neighbourhood, for in addition to being a medical practitioner whose advice was sought freely both by the public and his brother practitioners, he was a most regular attendant on the bench, having been for many years a magistrate for the county of Devon; he was honorary surgeon of the 18th Devon Volunteers (now the 4th Battalion of the Devon Regiment) and he was also a keen sportsman, both as a follower of hounds and as a shot. His death will be felt as a loss by the whole countryside.

ANDREW MULLAN, M.D. R.U.I., L.R.C.S. EDIN.

Dr. Andrew Mullan of Ballymena died on Sept. 19th at Larne, a seaside resort on the western shores of Belfast Lough. The son of a distinguished educationist who was principal of a well-known school in Banbridge, county Down, Dr. Mullan studied at Queen's College, Belfast, and Cork. He graduated as M.A. in 1863 and as M.D. in 1866 in the old Queen's University which was afterwards merged in the Royal University of Ireland. For many years he resided in Ballymena where he enjoyed an extensive practice and was greatly respected by his patients for his skill and careful attention. He was a strong advocate of temperance and a man greatly interested in religious and philanthropic movements. The funeral took place on Sept. 21st at Ballymena. He will be greatly missed by a very large circle of friends. Of late years, owing to declining health, he relinquished much of his professional work.

THOMAS LOGAN, M.D. ABERD., L.F.P.S. GLASG.

Dr. Thomas Logan, late of Wibsey (a suburb of Bradford in Yorkshire) and a highly respected practitioner there for a quarter of a century, died at South Drive, Harrogate, on Sept. 4th. In consequence of failing health and other reasons he retired from practice in Wibsey and went to live in Harrogate some three years ago. A man of handsome presence, tall and erect, with a flowing white beard, he may be remembered by many frequenters of the various international medical congresses and annual meetings of the British Medical Association for many years past. He studied in Glasgow in 1858–59, but subsequently graduated as M.D. in Aberdeen in the year 1860. He belonged to an Ayrshire family and had for a grand-uncle the late Sir Thomas Galbraith Logan, K.C.B., head of the British Army Medical Department in the early "eighties." On the inception of the great Volunteer movement during the Crimean war, Dr. Logan joined the Volunteers and rose to the rank of lieutenant but resigned on his appointment as superintendent of the Paisley Infirmary. This position he held for two years. He then began private practice in Penpont, Ayrshire, and afterwards purchased the practice of the late Dr. Henry Warburton of Wibsey. There he found his work extensive and onerous, leaving little or no time for leisure or recreation. He was engaged by the guardians of the North Bierley union as one of their district medical officers and on the death of Dr. Whitteron of Low Moor he was elected as medical officer of health until Wibsey and Low Moor were annexed to the borough of Bradford. In his personal characteristics Dr. Logan was calm, judicial, and slow of speech, clear-headed, observant, and thoughtful. For several years he had made a special study of the influence of the nervous system and its universal distribution in the absorption and communication of contagious maladies throughout the system, even before the respiratory and digestive tracts were affected. He had also elaborated a theory of the extensive circulation of the cerebro-spinal fluid. He read a paper on these topics at the recent International Congress of Medicine at Lisbon and after his retirement from Wibsey to Harrogate he spent his leisure in completing the record of his conclusions when death put a period to his earthly labours. His manuscript is, however, likely to be published since he has in his will left directions and provision for its issue. The funeral took place at Coylton, Ayrshire, on Sept. 7th.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The deaths of the following eminent foreign medical men are announced: Dr. Seneca D. Powell, professor of surgery in the New York Post-Graduate Medical School and Hospital.—Dr. J. Tillemont Fontes, professor of nervous and mental diseases in the University of Bahia.—Dr. Karl Kohn, of Vienna, editor of the *Oesterreichische Aerztliche Vereinszeitung*.

Medical News.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGE OF PHYSICIANS OF LONDON AND THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.—At the First Professional Examination of the Conjoint Examining Board held on Sept. 24th, 25th, 26th, and 27th, the following gentlemen were approved in the subjects indicated below:—

Chemistry and Physics.—John Claude Beddard, St. Mary's Hospital; Gordon John Gallagher, Liverpool University; Charles Lester Graham, Manchester University; Bhagat Ram Khanna, Punjab and London Hospital; Sohan Lal, London Hospital; James Lafayette Lauder, Guy's Hospital; and Arthur Waitak Woo, London Hospital.

Chemistry.—Alexander Percival Green, University College; Arthur Holmes, Liverpool University; George Basil Henley Jones and Courtenay Henry Gerard Pochin, Guy's Hospital; and Ellis Herbert Sydney Scarr, Manchester University.

Physics.—Meredydd Ffoulkes, University College of North Wales; Gerald Noel Martin and David Scott, London Hospital; and Keith Eric Wood, Charing Cross Hospital.

Elementary Biology.—Ellis Campbell Bowden and Ennis Ratcliff Chambers, London Hospital; Thomas Clarke, Leeds University; Hassell Dyer Field, Birkbeck College; Charles Lester Graham, Manchester University; Arthur Holmes, Liverpool University; Frederick Malcolm Stirling Hulke, Middlesex Hospital; Bhagat Ram Khanna, Punjab and London Hospital; Charles Virgil Nunez Lyne, Birkbeck College; Richard Turner McRae, London Hospital; John Hayward Paget, Charing Cross Hospital; Ellis Herbert Sydney Scarr and Charles Gordon Stoddard, Manchester University; Arthur Tilbury, Guy's Hospital; Rupert Edward Shawe Waddington, St. Bartholomew's Hospital; Victor James Arnott Wilson, Liverpool University; Arthur Waitak Woo, London Hospital; and Henry Stanley Young, Birkbeck College.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—At the Preliminary Science Examination for the Licence in Dental Surgery of the Royal College of Surgeons the following gentlemen were approved in the subjects indicated:—

Chemistry and Physics.—Harold Edgar Bower, Modern School, Bedford; and Leonard Dinnis, Charing Cross Hospital.

Chemistry.—Albert Bangert and Howard Canton, University College; Sydney Ingram Fillingham, Manchester University; Frederic Edwin Gill, Liverpool University; Edward Aubrey Clement Knox-Davies, Reading School; Vincent Joseph Powell, Liverpool University; and Grantley Smith, Bristol.

Physics.—George Wesley Royle, Modern School, Bedford; and James Bennett Sharp, Charing Cross Hospital.

UNIVERSITY OF DURHAM.—At the third examination for the degree of Bachelor in Medicine the following candidates satisfied the examiners:—

Pathology, Medical Jurisprudence, Public Health, and Elementary Bacteriology.—Honours, Second Class: Robert Raffle, College of Medicine, Newcastle-upon-Tyne. Pass List: Hubert Cyril Willoughby Allott, College of Medicine, Newcastle-upon-Tyne; Harriett Amelia Rachel Apps, London School of Medicine for Women; Alexander Hay Bower and John George Campbell, B.A., College of Medicine, Newcastle-upon-Tyne; Leslie Wilson Evans, Guy's Hospital and College of Medicine, Newcastle-upon-Tyne; Patrick Albert Galpin and Francis Frederick Trevor Hare, College of Medicine, Newcastle-upon-Tyne; Edward Pierce Llewellyn Hughes, Guy's Hospital; John Pritt Jackson, Annie Viccars Mack, Charles James Neilan, Ruth Nicholson, Charles Elias Reindorf, Theodore William Stallybrass, and Harold Widdrington Sykes, College of Medicine, Newcastle-upon-Tyne; and Dorothea Mary Tudor, London School of Medicine for Women.

FOREIGN UNIVERSITY INTELLIGENCE.—*Baltimore (University of Maryland):* Dr. Walter H. Mayhew has been appointed Lecturer on Histology and Embryology.—*Bologna:* Dr. Giovanni Perna has been recognised as *privat-docent* of Anatomy.—*Florence:* Dr. Luigi Picchi has been recognised as *privat-docent* of Pathological Anatomy, Dr. Guido Guerrini as *privat-docent* of General Pathology, Dr. Romolo Righetti as *privat-docent* of Neurology, Dr. Giuseppe Caccia as *privat-docent* of Pædiatry, and Dr. Edoardo Filippi as *privat-docent* of Pharmacology and Materia Medica.—*Havana:* Dr. Raimundo Menocal has been appointed Professor of Dermatology; Dr. Emilio Martinez, Professor of Otology and Laryngology; and Dr. Carlos Finlay, Professor of Ophthalmology.—*Kharkoff:* Dr. N. Melnikoff-Razvedenkoff, Extraordinary Professor of Pathological Anatomy, has been promoted to the Ordinary Professorship—*Naples:* Dr. Giovanni Miranda of Catania has been appointed Professor of Midwifery and Gynæcology in succession to Dr. O. Morisani who retires.—*Prague (German University):* Dr. Alfred Kraus has been recognised as *privat-docent* of Dermatology and Dr. Heinrich Hilgenreiner as *privat-docent* of Surgery.—*Rio de Janeiro:* Dr. Paul Leitão da Cunha has been appointed Assistant Professor of Bacteriology and Pathological Anatomy.—*Rome:* Dr. Crispoli has been recognised as *privat-docent* of Internal Pathology.

UNIVERSITY OF OXFORD: SCHOLARSHIPS AND PRIZES.—John Freeman, M.A., B.M., University College, has been elected to the Radcliffe Travelling Fellowship.—The Professor of Human Anatomy has reported to the Vice-Chancellor that the Welsh prize has been awarded to Wathen E. Waller, University College.—The Professor of Pathology gives notice that an election to the Philip Walker studentship in pathology will take place in October. The studentship was founded "for the furtherance of original research in pathology." It is of the annual value of £200 (payable quarterly in advance) and is tenable for three years. The student may be of either sex and need not necessarily be a member of the University of Oxford or be legally qualified to practise the profession of medicine. While holding office the time of the student must be devoted to original pathological research; no business or profession may be systematically followed and no educational or other work engaged in which, in the opinion of the professor of pathology and of the board of managers, would interfere with the pursuit of original inquiries. The place and the nature of the studies of the student are subject to the approval of the professor of pathology, but the student is bound to pursue these studies within the University during at least three terms of his tenure of the studentship. This requirement may, however, in special cases be dispensed with. If the work done by any student be of exceptional promise the studentship may be extended for a second period not exceeding two years. The full text of the regulations relating to the studentship will be found in the *University Gazette* of Feb. 2nd, 1904, and copies of these regulations can be had on application to the Registrar of the University.

THE PHARMACEUTICAL SOCIETY.—On Sept. 30th the sixty-sixth session of the School of Pharmacy of the Pharmaceutical Society of Great Britain was inaugurated at 17, Bloomsbury-square, London, the President (Mr. J. Rymer Young) occupying the chair. A large number of students and friends were present. The president announced that the adjudicators of the Hanbury gold medal had awarded the medal to Mr. David Hooper, curator of the art and economic sections of the India Museum, Calcutta. The medal (which is presented biennially for high excellence in the prosecution or promotion of chemistry and the natural history of drugs in commemoration of the late Daniel Hanbury, a well-known pharmacist) was received on behalf of Mr. Hooper by Surgeon-General A. M. Branfoot, C.I.E., who was deputed by the Secretary of State for India for that purpose. Professor Raphael Meldola, F.R.S., then delivered the inaugural sessional address, entitled "The Scientific Training of the Pharmacist," of which we shall publish an abstract next week. Professor Tilden, in proposing a vote of thanks to Professor Meldola, said that there was no doubt a great deal to be said for the suggestions that had been made, and he felt sure that they would be very carefully considered by the council of the society. He sympathised very much with the objections which Professor Meldola had raised against the teaching of so much in such a short space of time. He (the speaker) gave an interesting reminiscence of the times when he was a student at the School of Pharmacy and compared the state of pharmaceutical training 50 years ago with the advantages of the present. Sir Joseph Swan briefly seconded the motion which was carried.

UNIVERSITY OF LONDON: UNIVERSITY COLLEGE.—The following awards have been made: Bucknill Scholarship of 135 guineas: T. C. Graves, of the Royal Veterinary College, Camden Town. Entrance Exhibitions of 55 guineas each: P. V. Early, of Rydal Mount School, Colwyn Bay, and University College; and B. Woodhouse, of Cheltenham College and University College.

CHARING CROSS HOSPITAL: POST-GRADUATE DEMONSTRATIONS.—The first winter course of post-graduate demonstrations will commence on Thursday, Oct. 10th, at 4 P.M., and will be given by the members of the staff. Demonstrations on diseases of the skin are also given by Dr. J. Galloway and Dr. J. M H. MacLeod on Thursdays, at 3 P.M., and on mental diseases by Dr. C. A. Mercier on the first Wednesday of each month at 10 A.M. The lecture on Oct. 10th will be on medical subjects and will be delivered by Dr. H. M. Murray.

THE ROYAL SANITARY INSTITUTE.—A provincial sessional meeting of the Institute will be held at the Council Chamber, Town-hall, Ipswich, on Saturday, Oct. 19th, at 11 A.M., when a discussion will take place on the Recent Report of the Royal Commission on Tuberculosis. The discussion will be opened by Dr. A. M. N. Pringle, medical officer of health of Ipswich, and general discussion is invited. The chair will be taken at 3 P.M. by Colonel J. Lane Notter, R.A.M.C., deputy chairman of Council of the Institute. Tickets for admission of visitors to the sessional meeting may be had on application to Dr. Pringle, Exchange Chambers, Ipswich, who is acting as the local honorary secretary of the meeting.

GUY'S HOSPITAL MEDICAL SCHOOL.—The following entrance scholarships and certificates have been awarded:—Senior science scholarship for University students: J. G. Saner, Caius College, Cambridge (£50). Junior science scholarships: J. F Mackenzie, Preliminary Scientific (M.B.) Class, Guy's Hospital (£150); and R. D. Passey, Preliminary Scientific (M.B.) Class, Guy's Hospital (£60). Certificates: T. J. Bennett, Preliminary Scientific (M.B.) Class, Guy's Hospital; G. E. Genge-Andrews, Preliminary Scientific (M.B.) Class, Guy's Hospital; and S. Keith, Preliminary Scientific (M.B.) Class, Guy's Hospital. Entrance scholarships in Arts: C. S. L. Roberts, Cheltenham College (£100); and G. D. Eccles, Plymouth Technical School (£25), and G. F. Romer, Malvern College (£25) (equal).

LITERARY INTELLIGENCE.—Messrs. Baillière, Tindall, and Cox announce for publication "Blood Stains: their Detection and Determination of their Source," by Major W. D. Sutherland, I.M.S., who for the last year has been studying the subject in its connexion with medical jurisprudence in all the best-known clinics on the continent and in this country. A translation of Laveran and Mesnil's "Trypanosomes and Trypanosomiases," by Dr. D. Nabarro, who studied the subject in Uganda on behalf of the Royal Society's Commission on Sleeping Sickness, is also announced. Dr. Nabarro has largely added to the original work out of his own experience. From the same firm we learn that the "Manual of Anatomy" by Dr. A. M. Buchanan, one of the University Series, will in future be obtainable in one volume as well as in two, a special index having been compiled for the complete work. Messrs. Baillière, Tindall, and Cox are also European agents for the "American Practice of Surgery" reviewed in our columns on Sept 21st.—Probably the last piece of work done by the late Sir William Broadbent was in connexion with his editorship of the "Standard Family Physician" which Messrs. Funk and Wagnalls Company have now in the press. Associated with Sir William Broadbent were Sir James Crichton-Browne, Dr. Alfred T. Schofield of London, and other leading medical men of Europe and America. The work is due to be published in November, and will consist of three volumes with some 500 illustrations and diagrams, including an anatomical mannikin.—Mr. H. K. Lewis (136, Gower-street, London, W.C.) has just issued a new edition (the third under the joint

authorship) of Hygiene and Public Health by Dr. L. C. Parkes and Dr. H. R. Kenwood. A second edition, revised and much enlarged of Dr. George Oliver's "Studies in Blood Pressure" will be published shortly. Other new issues will be the third edition of "Diseases of the Nose and Throat," by Dr. F. de Havilland Hall and Dr. Herbert Tilley, containing many new illustrations printed as plates, the text being largely rewritten; a new work on "Squint and Ocular Paralysis," by Mr. E. Lucas Hughes; a book on the "Opsonic Method of Treatment," by Dr. E. B. Allen; one on "The Preservation of Infant Life," by Mrs. de Voss (*née* Kanthack); and "Reminiscences in the Life of Surgeon-Major Hutton."

ST. MARY'S HOSPITAL MEDICAL SCHOOL (UNIVERSITY OF LONDON).—As the result of the entrance scholarships examinations held on Sept. 23rd, 24th, and 25th, the following awards have been made:—Open Scholarships in Natural Science: £145, J. T. S. Gibson, Aske's Haberdashers' School; £78 15*s*., C. R. Harrison, Balham School; £52 10*s*., W. B. James, Derby Municipal Technical School; and £52 10*s*., C. E. S. Jackson, Haileybury College. University Scholarships: 60 guineas, H. B. Richmond, B.A., King's College, Cambridge; and exhibition of 30 guineas, P. N. Cave, B.A., University College, Oxford.

DEATH OF A CENTENARIAN.—It is announced that Mrs. Harriett Bruff died at Great Shelford, near Cambridge, on Oct. 1st in her 103rd year. She formerly resided at Ipswich.

BOOKS, ETC., RECEIVED.

BAILLIÈRE, TINDALL, AND COX, 8, Henrietta-street, Covent Garden, London, W.C.

A Manual of Veterinary Physiology. By Colonel F. Smith, C.B., C.M.G., Army Veterinary Staff, Fellow of the Royal College of Veterinary Surgeons, Fellow of the Institute of Chemistry. Third edition, completely revised and in parts re-written. Price 15*s* net.

Marine Climates in the Treatment of Tuberculosis. The Opening Address delivered at the Hastings Meeting of the British Balneological and Climatological Society on March 16th, 1907. By William Ewart, M.D. Cantab. et Dunelm, F.R.C.P. Lond., M.R.C.S. Eng., Senior Physician to St. George's Hospital and to the Belgrave Hospital for Children. Price 1*s*. net.

Transactions of the Medico-Legal Society for the Year 1906–1907. Edited by R. Henslowe Wellington, of the Middle Temple and South-Eastern Circuit, Barrister-at-Law, Deputy Coroner for the City of Westminster and the County of London; and Stanley B. Atkinson, M.A., M.B., of the Inner Temple, Barrister-at-Law, Justice of the Peace for the County of London, Member of the Central Midwives Board. Vol. IV. Price not stated.

CASSELL AND COMPANY, LIMITED, London, Paris, New York, Toronto, and Melbourne.

Insanity and Allied Neuroses. A Practical and Clinical Manual. By George H. Savage, M.D., F.R.C.P., late Physician and Superintendent of Bethlem Royal Hospital, Lecturer on Mental Diseases at Guy's Hospital, and Co-Editor of the "Journal of Mental Science," with the assistance of Edwin Goodall, M.D. Lond., B.S., F.R.C.P., Medical Superintendent of the Cardiff City Hospital for Mental Diseases, late Medical Superintendent, Joint Counties Asylum, Carmarthen, and Co-Editor of the "Journal of Mental Science." New and enlarged edition. Price 12*s* 6*d*.

Tropical Diseases. A Manual of the Diseases of Warm Climates. By Sir Patrick Manson, K.C.M.G., M.D., LL.D. Aberd., Fellow of the Royal College of Physicians, London, Fellow of the Royal Society, Hon. D.Sc Oxon., &c. Fourth edition, thoroughly revised and enlarged. Price 12*s*. 6*d*. net.

CHAPMAN AND HALL, LIMITED, London.

Essays and Addresses. By the late John Henry Bridges, M.B., F.R.C.P., Sometime Fellow of Oriel College, Oxford, late Medical Metropolitan Inspector to the Local Government Board. With an Introduction by Frederic Harrison. Price 12*s*. 6*d*. net.

CHURCHILL, J. AND A., 7, Great Marlborough-street, London, W.

An Introduction to Vegetable Physiology. By J. Reynolds Green, Sc.D., F.L.S., F.R.S., Fellow of Downing College, Cambridge. Second edition. Price 10*s*. 6*d*. net.

Blood Stains: their Detection and the Determination of their Source. A Manual for the Medical and Legal Professions. By Major W. D. Sutherland, of His Majesty's Indian Medical Service, Doctor of Medicine. Price 10*s*. 6*d*. net.

Pathology General and Special for Students of Medicine. By R. Tanner Hewlett, M.D., F.R.C.P., D.P.H., Professor of General Pathology and Bacteriology in King's College, London; Lecturer on Bacteriology, London School of Tropical Medicine; Physician to the Seamen's Hospital, Greenwich; Examiner in Pathology, University of Aberdeen; Examiner in Tropical Medicine, University of London. Second edition. Price 10*s*. 6*d*. net.

A Short Manual for Monthly Nurses. By Charles J. Cullingworth, M.D., F.R.C.P., Consulting Obstetric Physician to St. Thomas's Hospital. Sixth edition, revised and enlarged. Price 1*s*. 6*d*. net.

A Manual for Hospital Nurses and others Engaged in Attending on the Sick. By Edward J. Domville, L.R.C.P. Lond., M.R.C.S. Eng., Surgeon to the Royal Devon and Exeter Hospital and to the Exeter School. Ninth edition. Price 1*s*. 6*d*. net.

DEUTICKE, FRANZ, Leipzig and Vienna.

German-English Medical Dictionary. By Joseph R. Waller, M.D. Fourth edition, improved and enlarged, by M. White, M.D. Price M.6.

FROWDE, HENRY, AND HODDER AND STOUGHTON, 20, Warwick-square, London, E.C.

Oxford Medical Publications:—

A Manual of Venereal Diseases. By Officers of the Royal Army Medical Corps. Introduction by Sir Alfred Keogh, K.C.B., Director-General of the Army Medical Service. History, Statistics, Invaliding, &c., Lieut.-Colonel C. H. Melville, R.A.M.C., Secretary to the Advisory Board, Clinical Pathology and Bacteriology, Colonel Leishman, R.A.M.C. Clinical Course and Treatment, Major C. E. Pollock, R.A.M.C. Price 5*s*. net.

Diseases of the Ear. By Hunter Tod, M.A., M.B., B.C. Cantab., F.R.C.S. Eng., Aural Surgeon to the London Hospital, and Lecturer in Aural Surgery at the London Hospital Medical College. Price 5*s*. net.

Diseases of the Nose. By Ernest B. Waggett, M.A., M.B., B.C. Cantab., Surgeon to the Throat and Ear Department of the Charing Cross Hospital; Surgeon, London Throat Hospital, and Throat and Ear Department, Great Northern Central Hospital. Price 5*s*. net.

GARNIER, H., 71, Rua do Ouvidor, Rio de Janeiro.

Febre Amarella. Estudo Clinico. (Com Observações.) Pelo Dr. Zeferino Meirelles, Da Academia N. de Medicina do Rio de Janeiro, Medico do Hospital de S. Sebastião, Ex-Director do Hospital de Isolamento de Nictheroy. Price not stated.

KARGER, S., Karlstrasse, 15, Berlin, N.W.

Der Einfluss der Blutsverwandtschaft der Eltern auf die Kinder. Von Prof. Dr. E. Feer, Direktor der Universitäts-Kinderklinik in Heidelberg. Price M.1.

KEGAN PAUL, TRENCH, TRÜBNER, AND CO., LIMITED, Dryden House, Gerrard-street, London, W.

A Spirit Message from Robert Burns To the Author. Price 6*d*. net.

LARYNGOSCOPE COMPANY, THE, St. Louis, Missouri, U.S.A.

Tracheo-Bronchoscopy, Esophagoscopy, and Gastroscopy. By Chevalier Jackson, M.D., Laryngologist to the Western Pennsylvania Hospital, the Eye and Ear Hospital, and the Montefiore Hospital. Price $4.00 net or 17*s*.

J. B. LIPPINCOTT COMPANY, Philadelphia and London.

International Clinics. A Quarterly of Illustrated Clinical Lectures and especially prepared Original Articles by Leading Members of the Medical Profession throughout the World. Edited by W. T. Longcope, M.D., Philadelphia, U.S.A., with collaboration. Vol. III. Seventeenth series, 1907. Price not stated.

MACMILLAN AND CO., LIMITED, St. Martin's-street, London.

The Prevention of Infectious Diseases. Being the Lane Lectures delivered at Cooper Medical College, San Francisco, in August, 1906, and revised for publication. By John C. M'Vail, M.D., D.P.H. Camb., F.R.S.E., County Medical Officer for Stirlingshire and Dumbartonshire, lately Examiner in Medical Jurisprudence and Public Health in the University of Edinburgh and now in the University of Glasgow, ex-President of the Incorporated Society of Medical Officers of Health of Great Britain and of the Incorporated Sanitary Association of Scotland. Price 8*s*. 6*d*. net.

METHUEN AND CO., 36, Essex-street, Strand, London, W.C.

The New Religion. A Modern Novel. By Maarten Maartens, Author of "Dorothea," &c. Price 6*s*.

The Care of the Body. By Francis Cavanagh, M.D. Edin. (The New Library of Medicine. Edited by C. W. Saleeby, M.D., F.R.S.E.) Price 7*s*. 6*d*. net.

PARTRIDGE, S. W., AND CO., 9, Paternoster-row, London, E.C.

Osea Island. Illustrated Guide. By F. N. Charrington (owner of the island). Price 6*d*. net.

PENTLAND, YOUNG J., Edinburgh and London.

Manual of Practical Anatomy. By D. J Cunningham, M.D. Edin. et Dubl., D.Sc., LL.D. St. And. et Glas., D.C.L. Oxon., F.R.S., Professor of Anatomy in the University of Edinburgh. Fourth edition. Vol. I.: Upper Limb; Lower Limb: Abdomen. Vol. II.: Thorax; Head and Neck. Price 10*s*. 6*d*. each net.

SAMPSON LOW, MARSTON, AND CO., LIMITED, London.

How Does it Feel to be Old? Reprinted from the "Monthly Review," by Permission, with much Additional Matter. By E. Marston, F.R.G.S., author of "After Work," "Booksellers of Other Days," &c. Price 1*s*. net.

SANITARY PUBLISHING CO., LIMITED, 5, Fetter-lane, London, E.C.

The Bacteriological Examination of Disinfectants. By William Partridge, F.I.C. With a Preface by C. E. P. Fowler, D.P.H., F.R.C.S., Major R.A.M.C. Price 2*s*. 6*d*. net.

SISLEY'S, LIMITED, 9, Duke-street, Charing Cross, London, W.C.

The Wife: Her Book. By Haydn Brown, L.R.C.P., &c., Edin., Fellow of the Royal Institute of Public Health and of the Obstetrical Society, London. Price 3*s*. 6*d*. net.

STANFORD, EDWARD, 12, 13, & 14, Long-acre, London, W.C.

British Rainfall, 1906. On the Distribution of Rain in Space and Time over the British Isles during the Year 1906, as recorded by more than 4000 Observers in Great Britain and Ireland, and

discussed with Articles upon Various Branches of Rainfall Work. By Hugh Robert Mill. The forty-sixth Annual Volume. Price 10*s*.

STUBER, A. (CURT KABITZSCH), Würzburg.
Populär-Psychiatrie des Sokrates Redivivus. Gespräche über den kleinen Unverstand. Von Dr. H. Schäfer, Oberarzt a.D.der Irrenanstalt Friedrichsberg in Hamburg. Price not stated.

TAYLOR AND FRANCIS, Red Lion-court, Fleet-street, London.
University of London. University College. Calendar. Session MDCCCCVII.-MDCCCCVIII. Price not stated.

WILEY, JOHN, AND SONS, New York. (CHAPMAN AND HALL, LIMITED, London.)
The Physiology of Alimentation. By Dr. Martin H. Fischer, Professor of Pathology in the Oakland College of Medicine. First edition. First thousand. Price, cloth, $2·00 net, or 8*s*. 6*d*. net.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, such information for gratuitous publication.*

GLEED, SEYMOUR R., M.R.C.S., L.R.C.P. Lond., has been appointed Senior House Surgeon to the Scarborough Hospital and Dispensary.
SALL, ERNEST F., M.R.C.S., L.R.C.P. Lond., has been appointed Medical Superintendent of the Canterbury Borough Asylum.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BIRMINGHAM ASYLUM, Rubery-hill.—Assistant Medical Officer. Salary £150 per annum, with apartments, board, &c.
BOURNEMOUTH, ROYAL BOSCOMBE AND WEST HANTS HOSPITAL.—House Surgeon. Salary £80 per annum, with board, lodging, and washing.
BRADFORD POOR-LAW UNION HOSPITAL AND WORKHOUSE.—Resident Assistant Medical Officer, unmarried. Salary £100, with rations, apartments, and washing.
BROMPTON HOSPITAL SANATORIUM.—Assistant Medical Officer. Salary £150, with board, lodging, and washing
CAMBRIDGE, ADDENBROOKE'S HOSPITAL.—House Physician. Salary £65 per annum with board, residence, and laundry.
CAPE TOWN, SOMERSET HOSPITAL.—Junior House Physician. Salary £200 per annum, with quarters and rations.
CHELSEA HOSPITAL FOR WOMEN, Fulham-road, S.W.—Clinical Assistant.
CHELTENHAM GENERAL HOSPITAL.—House Physician, unmarried. Salary £65 per annum, with board and lodging
CHICHESTER, WEST SUSSEX COUNTY ASYLUM AND GRAYLINGWELL MENTAL HOSPITAL.—Junior Assistant Medical Officer, unmarried. Salary £150 per annum, with apartments, board, attendance, &c.
CLAYTON HOSPITAL AND WAKEFIELD GENERAL DISPENSARY.—Two House Surgeons, unmarried Salary of Senior £120 and Junior £80 per annum, with board, lodging, and washing in each case
CROYDON GENERAL HOSPITAL.—Senior and Junior House Surgeons. Salary of former £105, and of latter £60, with board, laundry, and residence in each case.
DERBYSHIRE ROYAL INFIRMARY.—Honorary Pathologist and Honorary Gynæcologist
ECCLES AND PATRICROFT HOSPITAL.—House Surgeon, unmarried. Salary £70 per annum, with board and washing.
EDINBURGH DISTRICT ASYLUM, Bangour Village.—Second Assistant Physician, unmarried. Salary £120 per annum, with board, apartments, and laundry.
EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, London, S.E.—House Physician. Salary £80, with board, residence, and washing. Also Assistant Surgeon.
GORDON HOSPITAL, Vauxhall Bridge-road, S.W.—Surgeon.
GRAHAMSTOWN, ALBANY GENERAL HOSPITAL.—House Surgeon. Salary £200 for the first year and £250 for the second and third years, with board, quarters, and laundry.
HAMPSTEAD GENERAL HOSPITAL.—Resident Medical Officer. Salary £100 per annum, with board and residence.
HOSPITAL FOR SICK CHILDREN, Great Ormond-street, London, W.C.—House Surgeon, Assistant Casualty Medical Officer, and House Physician, unmarried, all for six months. Salary £20, with board and residence in the hospital in each case.
HOSPITAL FOR WOMEN, Soho-square, W.—Pathologist and Curator of Museum. Salary 50 guineas per annum.
HULL CITY AND COUNTY LUNATIC ASYLUM.—Second Assistant Medical Officer, unmarried. Salary £150 per annum, with board, apartments, washing, and attendance.
KING'S COLLEGE, London, W.C.—Senior Obstetric Registrar and Tutor.
LIVERPOOL, CITY OF, INFECTIOUS DISEASES HOSPITAL.—Assistant Resident Medical Officer. Salary £120 per annum, with board, washing, and lodging.
LIVERPOOL STANLEY HOSPITAL.—House Surgeon.
MANCHESTER, UNIVERSITY OF.—Senior Demonstrator in Physiology. Salary £150, rising to £200 per annum.
METROPOLITAN BOROUGH OF ST. MARYLEBONE.—Medical Officer of Health. Salary £600 per annum.
METROPOLITAN HOSPITAL, Kingsland-road, N.E.—Assistant Surgeon.
NATIONAL DENTAL HOSPITAL AND COLLEGE, Great Portland-street, W.—Anæsthetist.
NEWCASTLE-ON-TYNE DISPENSARY.—Visiting Medical Assistant. Salary £160.
NEWPORT AND MONMOUTHSHIRE HOSPITAL.—Resident Medical Officer. Salary £80 per annum, with board, residence, and laundry.
NOTTINGHAM GENERAL HOSPITAL.—Assistant House Surgeon. Salary £60. with board, lodging, and washing.
PLYMOUTH, SOUTH DEVON AND EAST CORNWALL HOSPITAL.—House Physician for six months. Salary at rate of £50 per annum, with board, residence, and washing.
PORTSMOUTH, ROYAL HOSPITAL.—House Physician for six months. Salary at rate of £50 per annum, with board, &c.
PRINCE OF WALES'S GENERAL HOSPITAL, Tottenham, London, N.—House Surgeon and House Physician. Salaries £75 per annum each. Also Junior House Surgeon and Junior House Physician. Salaries £40 per annum each. With residence, board, and laundry in each case; all for six months.
REDHILL, EARLSWOOD ASYLUM.—Junior Assistant Medical Officer, unmarried. Salary £130, rising to £150, with board, lodging, and washing.
ROYAL EAR HOSPITAL, 43, Dean-street, Soho, London.—Assistant Anæsthetist. Also House Surgeon (non-resident). Salary £40 per annum.
ROYAL EYE HOSPITAL, OR ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL, Southwark, S.E.—House Surgeon for six months. Salary £52 10s. per annum, with board and residence.
ROYAL FREE HOSPITAL, Gray's Inn-road, W.C.—House Physician (male), and also Resident House Physician and Resident House Surgeon (females).
ST. THOMAS'S HOSPITAL.—Assistant Surgeon.
TAUNTON, TAUNTON AND SOMERSET HOSPITAL.—Resident Assistant House Surgeon for six months. Salary at rate of £50 per annum, with board, lodging, and laundry.
VALKENBERG ASYLUM, near Cape Town.—Assistant Medical Officer, unmarried. Salary £250 per annum, rising to £300, with board, washing, and lodging.
WEST LONDON HOSPITAL, Hammersmith-road, W. — Assistant Physician.
WESTERN GENERAL DISPENSARY, Marylebone-road, N.W.—Junior House Surgeon. Salary at rate of £80 per annum, with board, residence, and washing.
WINSLEY, NEAR BATH, THREE COUNTIES (GLOUCESTER, SOMERSET, AND WILTS) SANATORIUM FOR CONSUMPTIVES.—Resident Medical Officer, unmarried. Salary £200, rising to £300.
WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Senior House Physician, House Physician, and Second House Surgeon. Salaries £100, £80, and £80 respectively, with board, lodging, and laundry.

THE Chief Inspector of Factories, Home Office, S.W., gives notice of a vacancy as Certifying Surgeon under the Factory and Workshop Act at Osmotherley, in the county of York.

Births, Marriages, and Deaths.

BIRTHS.

DUNN.—On Sept. 23rd, at Murree, Punjab, India, the wife of Major H. N. Dunn, R.A.M.C., of a son.
MARWOOD.—On Sept. 28th, at Stratton Lodge, Campbell-road, Southsea, the wife of A. E. Marwood, L.R.C.P. & S., of a son.
YOUNG.—On Sept. 26th, at Meadowside, Twyford, Berkshire, the wife of F.C. Young, B.A., M.B., B.C. Cantab., of a daughter.

MARRIAGES.

DIXON—ALLAN.—On Sept. 25th, at St. George's, Hanover-square, Walter Ernest Dixon M.A., M.D., to Hope Glen, only daughter of Francis Glen Allan, of Barry-road, Dulwich.
SEARS—DEW.—On Sept. 28th, at Sydenham Baptist Church, Forest Hill, Charles Newton Sears, M.D., B.S Lond., M.R C S., L.R.C.P., to Annie Florence, the youngest daughter of Charles Dew, Esq., of Forest Hill.
WARNER—HOPKINS.—On Sept. 24th, at St. Matthew's Church, Upper Clapton, Howard Francis Warner, M B , B.S. Lond., to Ethel Laura, daughter of John Hopkins, of Stoke Newington, N.
WILSON—TYRER.—On Oct. 2nd, at St. Mary's, Prestbury, Cheltenham, by the Rev Cathrew Fisher, M.A., curate of St. John the Divine, Kennington, assisted by the Rev. H. Urling-Smith, M.A., vicar of St. Mary's, David Wilson, M.B., B.S., only son of David Wilson, Esq , M.D., of Paddock, Huddersfield, to Constance Beatrice, daughter of the late Richard Tyrer, Esq., B.A., of Cheltenham, and Mrs. Tyrer.

DEATHS.

BILLINGS.—On Sept. 27th, at St. James's-terrace, Regent's Park, William Thomas Billings, Staff Surgeon, R.N , aged 86 years.
JENKINS.—On Sept. 16th, at Colomendy, Ruthin, Josiah Roberts Jenkins, M.D., J.P., in his 81st year.
LOCHRANE.—At his residence, 64, Friargate, Derby, on Saturday, Sept. 21st, F. J. Lochrane, M.D., Ch.B. Glasg., Gynæcologist to the Derbyshire Royal Infirmary and Surgeon to the Derbyshire Hospital for Women, Derby.
MEAKIN.—On Sept. 21st, at Nordrach-upon-Mendip, Captain Harold Budgett Meakin, I.M.S., aged 37 years.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

THE PROSTITUTION OF THE POST-OFFICE.

DURING the past week we have received from four correspondents circulars of a singularly filthy character which had been sent either to their wives or to their friends. Three of our correspondents are medical men and one is a hospital secretary. The circulars in question deal with what are euphemistically called "female irregularities and the prevention of large families." The circulars sent out by one advertiser, a person whose name is J. J. Reinecke who describes himself as a "Medical Herbalist by Exam." and who gives his address as 88, West-street, Bristol, were sent to the wives of two of our correspondents, both medical men, and in the one case at least in an open envelope. A birth had recently occurred in each instance. Both correspondents received a four-page publication called "Reinecke's Married Woman's Friend and Female Adviser," and one correspondent in addition received another leaflet setting forth the virtues of "White Pills," which, according to Mr. Reinecke, are "soothing and effective for ..... weezing (*sic*) of the lungs, loosens roapy (*sic*) phlegm," and also female pills (Black Pills). Concerning these latter Mr. Reinecke says: "Every person who has used these pills sing (*sic*) in their praise for their curative power, one signle pill tells the tale at once. Female Irregularities, enemia (*sic*) constipation ..... pains in the shoulders, etc." In the "Family Friend" Mr. Reinecke or his editor says that "we do not wish to make a mart out of women's troubles. All advice will be gratis and one subject only is tabooed." The article then proceeds: "We refer to the condition which leads women to fly to female pills and quack advertisements which delude many, deplete their pockets, and impair their health." This passage seems incompatible with the black pills eulogium. On p. 4 of the "Married Woman's Friend" Mr. Reinecke sets out the virtues of his "Contraceptives." The other circular, one of which was received by the hospital secretary's wife and one by a friend of another medical correspondent, is headed "For Private Circulation Only" and deals with Nurse Abbott's Wonderful Eastern Remedy, which can be obtained from the secretary, Oriental Laboratory, Thornhill-square, London, N. The remedy, according to Nurse Abbott, is "a sure cure and preventative against all irregularities and big families." She also advises her readers not to lose time "but to send at once for this wonderfel (*sic*) specific for all female troubles post free 4*s*. 6*d*. P.O. only." Nurse Abbott's circular was also in an open envelope with a half-penny stamp bearing the Watford postmark. The hospital secretary informs us that no birth has recently occurred in his family and that he is at a loss to suggest the reason why it should have been sent to his wife. Since the publication in 1898–1899 of our articles about quacks and abortion the manufacturer of real or supposititious abortifacients has been chary of advertising his wares in newspapers, and even the less respectable portion of the press has also become chary of inserting such advertisements. The abortion-monger therefore resorts to the plan of using the Post-Office as a means of distributing his disgusting advertisements. Now, there is an Act of Parliament known as the Post Office Protection Act under which Nurse Abbott and Mr Reinecke could possibly be prosecuted. We beg to call the attention of the police authorities both in London and Bristol and also of the Postmaster General to the circulars upon which we have commented. It is intolerable that a great department of His Majesty's Government should be used for the dissemination of circulars which are not only filthy but, if the wares which they advertise really do produce abortion, are felonious; if they do not, they are swindles.

THE UNSELFISHNESS OF MEDICINE.

To the Editors of THE LANCET.

SIRS,—If the question "Why are you seeking to enter the medical profession?" could be put to the youths and maidens who are now about to enrol their names as students of medicine how many of the ingenuous throng would answer, "Because it is my heart's desire to be able to be of use to my fellow creatures by relieving pain and prolonging life"? Doubtless a majority. If, however, like the commissioner who was sent to earth by the lunar authorities to discover and reclaim Selenitic fugitives, the questioner possessed the power of extracting the truth, the whole truth, and nothing but the truth in response to his queries, it is to be feared that the majority would dwindle perilously close to, if not actually into, a minority. The compelled reply would be, "To make an honest living," or, in other other words, legitimately to acquire a sufficiency of money to enable me to live comfortably, to wear good clothes to eat decent food, to inhabit a respectable house, and to take unto myself as the case might be, a wife or a husband. Still, beyond all cavil, there would remain *some* medical postulants who could conscientiously lay claim to altruistic motives in their choice of a profession. To a certain number the relief of suffering would be the chief concern and all the other incentives merely subsidiary.

Can the same be said of aspirants in any other walk of life save the Church? Do aspiring barristers eat dinners in the fervent hope that it will enable them to help needy and oppressed clients in the dim and distant future? Are embryonic attorneys actuated by overweening anxiety for the wellbeing of the litigious? Do budding students of agriculture think principally of the advantage to consumers of wholesome and withal inexpensive food? Are the prospective occupants of lofty stools in the offices of insurance companies consumed by solicitude for an uncapitalised and improvident proletariat? Do mercantile cadets embark upon a course of adventurous trading for patriotic reasons? Are the recruits of the Stock Exchange humanitarian?

No need to ask; the questions supply their own answers. Nothing for nothing is the universal law save only where the practitioners of medicine are concerned. All other labourers are deemed worthy of their hire, but the medical man must at times give of his best and demand no remuneration.

"It is a well-understood and accepted rule of the faculty that in all urgent cases of sudden or other illness, accident, or injury it is the imperative duty of a practitioner to promptly and unhesitatingly render professional aid to the patient, and not to leave the case until the emergency has been provided for." This quotation, from a medical journal, though by no means recent, expresses the present feeling of the medical man with perfect accuracy. Medical aid is never delayed in an emergency; the question of payment comes afterwards. But all the same the procedure is distinctly illogical and requires elucidation.

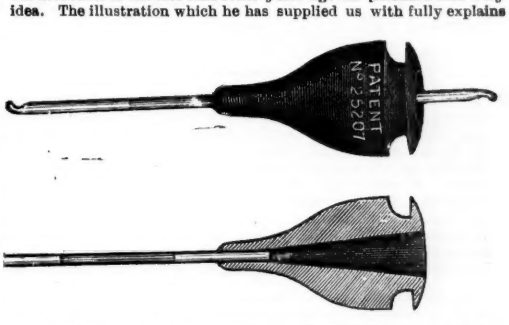
The owner of a restaurant who runs in a man dying from starvation for filching a meal he cannot pay for retains nevertheless his position as a meritorious citizen and the press abstains from gibbeting him as an inhuman villain; but should a surgeon decline to attend to an impecunious patient he is forthwith branded as a monster of iniquity and hard-heartedness. Nor is the outcry in the latter case raised solely by irresponsible people with shallow brains, for even magistrates have been known to comment in scathing terms on the lack of common humanity exhibited. What in the beginning was conceded out of kindness of heart by medical men has grown to be looked on as a right by the conscienceless classes who are ever ready to take though it is very hard to induce them to give.

Whilst admitting freely that practitioners of medicine never should, or would, refuse to give their services gratis in urgent cases, is it not reasonable that we should emphatically deny that the public has any right to claim them? Free medical aid in emergencies is charity pure and undefiled and although the bestower thereof never looks for gratitude nor expects thanks I maintain that he is richly entitled to both.

I am, Sirs, yours faithfully,
M.D.

A VACCINE EXPELLER.

IN our issue of Sept. 21st, p. 872, under the title "A Hint to Public Vaccinators," we published a letter from Mr. John Lawrence accompanied by his illustration of a vaccine expeller. Mr. J. H. Montague, surgical instrument maker (69, New Bond-street, London), has drawn our attention to the fact that some years ago he patented this very idea. The illustration which he has supplied us with fully explains



his ingenious device for expelling vaccine from the tube and thus obviating the dangerous method of blowing out the lymph with the mouth. The tube with sealed ends is first drawn midway through the larger opening as illustrated, the upper end of which is then broken off and is drawn so far through the hole that the broken end is only about half an inch from the smaller hole. The other end of lymph tube is now broken off and the mount held between the first and second finger, whilst placing the thumb over the top opening and compressing, the vaccine is immediately expelled. By this means the vaccine can also be distributed as desired. If the tube does not pass with ease through the small hole it will only be necessary to wet it a little.

VICIOUS CIRCLES IN MEDICINE.

To the Editors of THE LANCET.

SIRS,—I should be greatly obliged if any of your readers could assist me in answering the following questions: 1. What references to "Vicious Circles" occur in foreign medical literature? 2. When was the expression "vicious circle," long used by logicians, first applied to pathological conditions?

I am, Sirs, yours faithfully,
Abbotsbrook, Reading, Sept. 30th, 1907. JAMIESON B. HURRY.

THE HOSPITAL SATURDAY FUND.

To the Editors of THE LANCET.

SIRS,—A patient told me he was using a gargle supplied to him at "the works." "Have you a medicine chest there?" I asked, little expecting the reply I elicited. "Yes, we pay a penny a week to the Hospital Saturday Fund and they send us a medicine chest and a chap in the works looks after it." Is this a new departure?

I am, Sirs, yours faithfully,

Sept. 27th, 1907. H. G. D.

*** We submitted our correspondent's statement to Mr. A. W. Davis, the secretary of the Hospital Saturday Fund, who, in the course of his reply, states as follows:—"No medicine chests are issued by this fund. For 13 years past the ambulance committee has issued boxes containing requisites for rendering first aid under carefully considered conditions. I enclose herewith a copy of the rules and regulations and a list of the contents of the ambulance boxes. From this list you will see that there is no gargle provided in the ambulance box supplied." From this it is obvious that wherever "H. G. D.'s" informant got his gargle from it was not supplied as such by the Hospital Saturday Fund, though, of course, it is possible that the izal, two bottles of which are in each ambulance box, may have been used by some irresponsible person to make a gargle.—ED. L.

STATISTICS OF CONFINEMENTS.

To the Editors of THE LANCET.

SIRS,—Can any reader furnish me with the title of a publication giving an analysis of a certain number (large if possible) of confinement cases with or without comments and written either in English, French, or German? I am, Sirs, yours faithfully,

Oct. 2nd, 1907. C. S.

A WARNING.

To the Editors of THE LANCET.

SIRS,—Will you allow me to warn the profession generally, and medical men practising in the Sussex area in particular, against assisting by money or otherwise a woman calling herself either the wife or the widow of "Dr. Wilson" of Cape Town or other address. The woman is aged about 38 years, 5 feet 7 inches in height, with fair hair and complexion, long face, lady-like appearance, and quiet manner. She is dressed in black. Her story varies; a bicycle accident or non-delivery of remittances from the Cape have been variously given as the reason for help required. At the present time her address is unknown, but she was last heard of in Lewes where she obtained assistance by means of a false pretence. If any of your readers can give me any information about the woman I should be greatly obliged as the matter is in the hands of the Medical Defence Union and the police authorities.

I am, Sirs, yours faithfully,

A. G. BATEMAN, Gen. Sec.

The Medical Defence Union, 4, Trafalgar-square, W.C.,
Oct. 1st, 1907.

C. E.—The Jenner Society (secretary, Dr. Francis T. Bond, 3, Beaufort-buildings, Gloucester) publishes several books and pamphlets which may be useful for the purpose mentioned. Dr. J. C. McVail, 20, Eton-place, Hillhead, Glasgow, medical officer of health of Stirlingshire and Dumbartonshire, has written several works on the subject. Reference may also be made to the Report of the Royal Commission on Vaccination, to Dr. Sidney Coupland's "Report of the Royal Commission on Small-pox in Gloucester" (Eyre and Spottiswoode, 7*s.*); to Dr. Robert Cory's "Theory and Practice of Vaccination" (Baillière, Tindall, and Cox, 12*s.* 6*d.*); and to Dr. S. Monckton Copeman's "Vaccination" (Macmillan and Co., 6*s.*).

M.—We do not see that our correspondent can do anything except refuse to vaccinate the immigrants, but in that case he should be careful that he is not infringing any of the conditions of his agreement with the shipping company. A letter appeared in THE LANCET of Sept. 7th (p. 746) complaining of the same thing. Our correspondent might write to Mr. G. Metcalfe Sharpe, Angram Hospital, Middlesmoor, Leeds, who is organising an Association of Ships' Surgeons.

Yokohama.—The treatment of nervous tremor is the treatment of the disease or condition which gives rise to the tremor. As to literature, the works of Gowers, Head, and Weir Mitchell, amongst others, will help our correspondent.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

During the week marked copies of the following newspapers have been received:—*Cork Constitution, Keighley Post, Belfast News, Daily Express, Surrey Comet, Islington News, Daily News, Morning Post, Daily Telegraph, Daily Chronicle, The Star, Scientific American, Literary Digest (New York), Brecon County Times, Liverpool Daily Post, Yorkshire Post, Standard, Morning Leader, &c.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Oct. rd, 1907.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rainfall.	Solar Radio in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Wet Bulb.	Dry Bulb.	Remarks.
Sept. 27	29 68	E.	...	105	73	59	61	63	Fine
,, 28	29 81	S.E.	...	105	75	60	60	63	Overcast
,, 29	29 82	N.E.	...	74	63	56	56	59	Overcast
,, 30	29 75	N.E.	...	77	64	57	57	59	Overcast
Oct. 1	29 60	S.	0 10	111	67	58	57	59	Fine
,, 2	29·54	S.W.	0·16	103	63	53	52	55	Cloudy
,, 3	29 50	S.	0 01	102	63	51	52	55	Fine

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (7th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Royal Free (2 P.M.), Guy's (1.30 P.M.), Children, Gt. Ormond-street (3 P.M.), St. Mark's (2.30 P.M.).

TUESDAY (8th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Soho-square (2 P.M.), Chelsea (2 P.M.), Central London Throat and Ear (2 P.M.), Children, Gt. Ormond-street (2 P.M., Ophthalmic, 2.15 P.M.), Tottenham (2.30 P.M.).

WEDNESDAY (9th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Cancer (2 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Royal Ear (2 P.M.), Royal Orthopædic (3 P.M.), Children, Gt. Ormond-street (9.30 A.M., Dental, 2 P.M.), Tottenham (Ophthalmic, 2.30). P.M.

THURSDAY (10th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Royal Orthopædic (9 A.M.), Royal Ear (2 P.M.), Children, Gt. Ormond-street (2.30 P.M.), Tottenham (Gynæcological, 2.30 P.M.).

FRIDAY (11th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), City Orthopædic (2.30 P.M.), Soho-square (2 P.M.), Central London Throat and Ear (2 P.M.), Children, Gt. Ormond-street (9 A.M., Aural, 2 P.M.), Tottenham (2.30 P.M.), St. Peter's (2 P.M.).

SATURDAY (12th).—Royal Free (9 A.M.), London (2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), University College (9.15 A.M.), Charing Cross (2 P.M.), St. George's (1 P.M.), St Mary's (10 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Children, Gt. Ormond-street (9.30 A.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

THURSDAY (10th).—ROYAL SOCIETY OF MEDICINE (OBSTETRICAL AND GYNÆCOLOGICAL SECTION) (30, Hanover square, W.)—7.45 P.M.: Specimens will be shown by Dr Eden and others. Short Communication:—Dr. A. Routh: A Case of Cæsarean Hysterectomy for Traumatic Atresia of Vagina, the Patient having previously been Successfully Operated upon for Vesico-vaginal Fistula. Paper:—Prof. W. E. Dixon and Dr. F. E. Taylor: On the Physiological Action of the Placenta.

FRIDAY (11th).—ROYAL SOCIETY OF MEDICINE (CLINICAL SECTION) (20, Hanover-square, W.)—8.30 P.M.: Inaugural Address: The President (Sir Thomas Barlow). Exhibition of Cases. The patients will be in attendance at 8 P.M.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY (7th).—POST-GRADUATE COLLEGE (West London Hospital, Hammersmith road, W.).—12 noon: Lecture:—Dr. Low: Pathological Demonstration. 2 P.M.: Medical and Surgical Clinics. X Rays. Mr. Dunn: Diseases of the Eye. 2.30 P.M.: Operations.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M.: Mr. G. Pernet: Clinique. (Skin.) 5.15 P.M.: Lecture:—Mr. C. R. B. Keetley: Fractures and Dislocation of the Hip, especially Old and Unreduced Ones.

NORTH-EAST LONDON POST-GRADUATE COLLEGE (Prince of Wales's General Hospital, Tottenham, N.).—Cliniques:—10 A.M.: Surgical Out-patient (Mr. H. Evans). 2.30 P.M.: Medical Out-patient (Dr. Whipham); Throat, Nose, and Ear (Mr. H. W. Carson); X Ray (Dr. A. H. Pirie); 4.30 P.M.: Medical In patient (Dr. A. J. Whiting).

LONDON SCHOOL OF CLINICAL MEDICINE (Dreadnought Hospital, Greenwich).—2.30 P.M.: Sir Dyce Duckworth: Medicine. 2.30 P.M.: Operations. 3.15 P.M.: Mr. W. Turner: Surgery. 4 P.M.: Dr. StClair Thomson: Ear and Throat. Out-patient Demonstrations:—10 A.M.: Surgical and Medical. 12 noon: Ear and Throat.

TUESDAY (8th).—POST-GRADUATE COLLEGE (West London Hospital Hammersmith road, W.).—2 P.M.: Medical and Surgical Clinics. X Rays. Dr. Ball: Diseases of the Throat, Nose, and Ear. 2.30 P.M.: Operations Dr. Abraham: Diseases of the Skin. 5 P.M.: Lecture:—Mr. Bidwell: Clinical.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M.: Dr. A. Morison: Clinique. (Medical.) 5.15 P.M.: Mr. D. Harrisson (Liverpool): Some Considerations regarding Cerebral Surgery (with lantern slides).

NORTH-EAST LONDON POST-GRADUATE COLLEGE (Prince of Wales's General Hospital, Tottenham, N.).—Cliniques:—10.30 A.M.: Medical Out-patient (Dr. A. G. Auld). 2.30 P.M.: Surgical Operations (Mr. Carson), Surgical Out-patient (Mr. Edmunds); Gynæcological (Dr. A. E. Giles). 4.30 P.M.: Lecture-Demonstration:—Mr. Edmunds: Injuries about the Elbow.

LONDON SCHOOL OF CLINICAL MEDICINE (Dreadnought Hospital, Greenwich).—2.15 P.M.: Dr. R. T. Hewlett: Medicine. 2.30 P.M.: Operations. 3.15 P.M.: Mr. Carless: Surgery. 4 P.M.: Mr. M. Morris: Diseases of the Skin. Out-patient Demonstrations:—10 A.M.: Surgical and Medical. 12 noon: Skin. 3.30 P.M.: Special Lecture:—Opening Address: Sir Richard D. Powell: The Advantages of Post-graduate Teaching.

CENTRAL LONDON THROAT AND EAR HOSPITAL (Gray's Inn-road, W.C.).—3.45 P.M.: Demonstration: Dr. D. Grant: Methods of Examination.

WEDNESDAY (9th).—POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—10 A.M.: Dr. Ball: Diseases of the Throat, Nose, and Ear. Dr. Saunders: Diseases of Children. 2 P.M.: Medical and Surgical Clinics. X Rays. 2.30 P.M.: Operations. 5 P.M.: Lecture:—Mr. R. Lloyd: Anæsthetics.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M.: Mr. P. J. Freyer: Clinique. (Surgical.) 5.15 P.M.: Lecture:—Dr. G. H. Savage: The Psychoses of the Aged.

NORTH-EAST LONDON POST-GRADUATE COLLEGE (Prince of Wales's General Hospital, Tottenham, N.).—Cliniques:—2.30 P.M.: Medical Out-patient (Dr. Whipham); Dermatological (Dr. G. N. Meachen); Ophthalmological (Mr. R. P. Brooks).

LONDON SCHOOL OF CLINICAL MEDICINE (Dreadnought Hospital, Greenwich).—2.15 P.M.: Dr. F. Taylor: Medicine. 2.30 P.M.: Operations. 3.30 P.M.: Mr. Cargill: Ophthalmology. Out-patient Demonstrations:—10 A.M.: Surgical and Medical. 11 A.M.: Eye.

THURSDAY 10th).—POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—2 P.M.: Medical and Surgical Clinics. X Rays. Mr. Dunn: Diseases of the Eye. 2.30 P.M.: Operations. 5 P.M.: Lecture:—Mr. Baldwin: Practical Surgery.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M.: Mr. Hutchinson: Clinique. (Surgical.) 5.15 P.M. Lecture:—Mr. H. Evans: Cysts and Cystic Conditions of the Neck.

NORTH-EAST LONDON POST-GRADUATE COLLEGE (Prince of Wales's General Hospital, Tottenham, N.).—2.30 P.M.: Gynæcological Operations (Dr. Giles). Cliniques:—Medical Out-patient (Dr. Whiting), Surgical Out-patient (Mr. Carson), X Ray (Dr. Pirie). 3 P.M.: Medical In-patient (Dr. G. P. Chappel). 4.30 P.M: Throat Operations (Mr. Carson). Lecture:—Dr. Forsyth: Goitre.

LONDON SCHOOL OF CLINICAL MEDICINE (Dreadnought Hospital, Greenwich).—2.15 P.M.: Dr. G. Rankin: Medicine 2.30 P.M.: Operations. 3.15 P.M.: Sir W. Bennett: Surgery. 4 P.M.: Mr. M. Davidson: Radiography. Out-patient Demonstrations:—10 A.M.: Surgical and Medical. 12 noon: Ear and Throat. 3.15 P.M.: Special Lecture:—Sir W. Bennett: Painless Effusion into Knee joint.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-square. W.C.).—6 P.M.: Chesterfield Lecture:—Dr. M. Dockrell: Essentials in the Study of Dermatology.

CHARING CROSS HOSPITAL.—3 P.M.: Demonstration:—Dr. Galloway and Dr. MacLeod: Diseases of the Skin. 4 P.M.: Demonstration:—Dr. Murray: (Medical). (Post-Graduate Course.)

FRIDAY (11th). POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—2 P.M.: Medical and Surgical Clinics. X Rays. Dr. Ball: Diseases of the Throat, Nose, and Ear. 2.30 P.M.: Operations. Dr. Abraham: Diseases of the Skin. 5 P.M.: Lecture:—Mr. R. Lloyd: Anæsthetics.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.). 4 P.M.: Dr. StClair Thomson: Clinique. (Throat.)

NORTH-EAST LONDON POST-GRADUATE COLLEGE (Prince of Wales's General Hospital, Tottenham, N.).—10 A.M.: Clinique:—Surgical Out-patient (Mr. H. Evans). 2.30 P.M.: Surgical Operations (Mr. Edmunds). Cliniques:—Medical Out-patient (Dr. Auld), Eye (Mr. Brooks). 3 P.M.: Medical In-patient (Dr. M. Leslie).

LONDON SCHOOL OF CLINICAL MEDICINE (Dreadnought Hospital, Greenwich).—2.15 P.M.: Dr. R. Bradford: Medicine. 2.30 P.M.: Operations. 3.15 P.M.: Mr. McGavin: Surgery. Out-patient Demonstrations:—10 A.M.: Surgical and Medical. 12 noon: Skin. 2.15 P.M.: Special Lecture: Dr. R. Bradford: Arterio-sclerosis.

CENTRAL LONDON THROAT AND EAR HOSPITAL (Gray's Inn-road, W.C.). 3.45 P.M.: Demonstration:—Dr. D. Grant: Methods of Examination.

SATURDAY (12th).—POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—10 A.M.: Dr. Ball: Diseases of the Throat, Nose, and Ear. 2 P.M.: Medical and Surgical Clinics. X Rays. 2.30 P.M.: Operations.

LONDON SCHOOL OF CLINICAL MEDICINE (Dreadnought Hospital, Greenwich.)—2.30 P.M.: Operations. Out-patient Demonstrations:—10 A.M.: Surgical and Medical. 11 A.M.: Eye.

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